EXPERIENCES OF STUDENTS WITH AUTISM SPECTRUM DISORDER IN MISSISSIPPI COMMUNITY COLLEGES

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by

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ABSTRACT

The purpose of this study was to gain a deeper understanding of how students with autism spectrum disorder experience the community college setting in Mississippi. It was designed to be exploratory in nature and was intended to provide practitioners a glimpse into the postsecondary experiences of students with autism (Bell, Devecchi, McGuckin, & Shevlin, 2017). Through the contextualization of Labaree's framework and person-environment fit models, this critical disability study emphasizes "empowerment, agency, and social change" (Vaccaro, Kimball, Wells, & Ostiguy, 2015, p. 26). This study aimed not only to contribute to the understanding of lived experiences, but also to contribute to the discussion of marginalization of students with autism spectrum disorder in higher education by applying a framework of democratic equality, social efficiency, and social mobility. The study was guided by three research questions: (1) What are the experiences of students with ASD within the community college system in Mississippi? (2) How do the experiences affect the students' perceptions of a successful degree completion? (3) What do students with ASD believe can be done within their college to support their educational endeavors?

Participants in this study included seven Mississippi community college students with autism spectrum diagnoses. Each study participant was registered with their respective disability services office. In-depth semi-structured interviews revealed two primary themes and four sub-

themes. The findings also suggested two influential groups of people that affected the community college experiences of students with ASD. Those themes are: (1) Peers Make a Difference, with sub-themes titled Campus Life & Involvement and Classroom Interactions; and (2) College is Stressful and Self-Determination Matters with sub-themes titled College Selection, Transition, and Self-Advocacy, and Accommodations and Disability Support Services, both of which are influenced by parents and faculty. Based on this study's findings, it was recommended that practitioners support students with autism in Mississippi community colleges by (1) offering customized services; (2) introducing peer mentors; (3) involving parents; and (4) fostering a disability-friendly community college environment.

DEDICATION

This dissertation is dedicated to the person whose very being changed my life. Christian, my son, you have taught me to see the world through a different lens, to fight for what is right, and to love unconditionally. You are my everything.

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The following dissertation was written in a companion framework. Chapters I through III were jointly written with my colleague Ronda Bryan. There was no more perfect colleague to work with on such an endeavor. I thank Ronda for her dedication to the vision of the project, for submitting all work before our set deadlines, for her enduring patience, for the much needed comic relief, and for being a gracious and kind human-being. Dr. Kerry Brian Melear, our dissertation chair, has been a calming force. His support, guidance, and encouragement has been critical to the successful completion of this dissertation. The entire Dissertation Committee is to be thanked: Dr. Amy Wells Dolan, Dr. Neil Hutchens, and Dr. Denise Soares. Each member provided invaluable suggestions and feedback, which were immensely helpful for the successful outcome of the dissertation. In addition, I would like to acknowledge and thank the following for allowing permission to use copyrighted work in my dissertation: Dr. Susan W. White, AAPC Publishing, Dr. Karen Renn, and John Wiley and Sons.

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CHAPTER I

INTRODUCTION

Authors: Krystal Berry & Ronda Bryan

This dissertation in practice (DiP) is written as a companion dissertation by doctoral partners as part of a doctoral program designed to follow the Carnegie Project on the Education Doctorate (CPED). The goal of this project was to work collaboratively to highlight an existing problem of practice that currently exists in postsecondary educations, namely community colleges in Mississippi. As a result, this dissertation includes a collectively written discussion of a critical problem of practice related to students with disabilities (SWDs) (Chapter I), and a literature review that explores disability frameworks, social justice and equity frameworks, person-environment interactions, and social and environmental influences that affect the postsecondary retention and completion of SWDs (Chapter II). The authors identified two sub-populations for further exploration – students with autism spectrum disorder (ASD) and students who are d/Deaf and Hard of Hearing (DHH). The methodology, which was shared by both authors in an effort to maintain consistency, is described in detail (Chapter III). The authors independently researched their respective sub-populations. The analysis and findings for this independent study shines light on the community college experiences of students with ASD in Mississippi (Chapter IV). Finally, the implications for practice and research ascertained from this study's findings are shared (Chapter V).

Problem of Practice

The World Health Organization (WHO) (2011) estimates a five percent growth in the number of people estimated to be living with a form of disability. Based on 2010 estimates, approximately 15%, or about one billion people, of the world's population 15 years and older live with an impairment. The Centers for Disease Control and Prevention (CDC) (2015) estimates that 22%, which is more than 70 million, of the United States adult population lives with a disability. The CDC reported findings suggesting that higher percentages of adults living with disabilities are in southern states. Of those with higher percentages, 31.4% of Mississippi residents have a disability (CDC, 2015).

Twenty-eight years after the Americans with Disabilities Act (ADA) was passed, disability-related disparities continue to affect the nearly 56.7 million Americans with disabilities (United States Census Bureau, 2012). In 2013, only 31.9% of adults with disabilities were in the workforce, compared to 63.5% of adults without disabilities (VonShrader, 2015). Median earnings are also significantly different between those with and those without disabilities. The earnings for people without disabilities is 75% higher than that for people with disabilities (Stoddard, 2014). More than 10% of Americans with disabilities live in persistent poverty, but only 3.8% of Americans without disabilities live in persistent poverty (US Census Bureau, 2014). In Mississippi, the state of focus for the two studies, the percentage of people with disabilities is 16.5% whereas the national average is 12.2%. Additionally, Mississippians with disabilities have a significantly lower level of employment (at only 26.4%) than those without disabilities (at 69.9%) at the statewide level (MSPE, 2014).

In 2014, almost 21% of 24 year olds with a disability in the United States did not complete high school with a diploma compared to only 7% of 24 year olds without a disability

(Stetser & Stillwell, 2014). Postsecondary attainment numbers are just as discouraging. In 2014, 34.6% of Americans age 25 and older without a disability had a bachelor's degree compared to only 16.4% of those with a disability (Bureau of Labor Statistics, 2015). A report by the American Community Survey (ACS) found that "educational attainment is by far the most important social characteristic for predicting earnings" (Julian, 2012, p. 1). The lifetime earnings of an individual with an undergraduate degree compared to an individual with a high school diploma is expected to be about $1 million more; those who obtain an associate degree are expected to earn over $500 thousand more than someone with a high school diploma (Julian, 2012, p. 4). Given the importance of a college degree to quality of life, increasing degree attainment for college students with disabilities (SWDs) is essential.

More students in postsecondary institutions are disclosing a disability. Since 1995 the percentage of undergraduate students reporting a disability has increased from 6% to 11% (U.S. Department of Education, 2016). Differences exist among the 11% with regard to characteristics. For example, 21% of the undergraduate population that are veterans reported a disability; 16% of adult undergraduates over the age of 30 also reported a disability, which was higher than 15-23 year olds at 9%, and 24-29 years olds at 11%; of undergraduate students who were dependents, fewer reported a disability compared to their independent married and unmarried counterparts; and, students who identified as two or more races reported the highest rate of disability. Asian students reported the lowest rate of disability (U.S. Department of Education, 2016).

The increase in the number of SWDs in higher education can be attributed to the Americans with Disabilities Act (ADA), the 2008 amendments to the act (ADAAA), and Section 504 of the Rehabilitation Act of 1973, which protects against discrimination based on ability

level (Bowman, 2011). Under the ADA Title II, "any program or activity conducted by a public entity ranging from adult and higher education to prisons to public health care" may not discriminate against SWDs in terms of employment opportunities and access to educational and other social institutions. Section 504 of the Rehabilitation Act of 1973 prohibits any public institution that receives federal funding from discriminating based on ability level (Bowman, 2011, p. 85).

Unlike in the K-12 setting where Section 504 ensures Free Appropriate Public Education (FAPE) for all students, at the postsecondary level it requires public postsecondary institutions to "provide appropriate academic adjustments as necessary to ensure that it does not discriminate on the basis of disability" (U.S. Department of Education, 2011, para. 7) provided the accommodations do not substantially alter the program of study in question or cause undue financial hardship on the institution (Leuchovius, 2017). According to the U.S. Office of Civil Rights, examples of academic adjustments, or accommodations, may include "arranging for priority registration; reducing a course load; substituting one course for another; providing note takers, recording devices, sign language interpreters, extended time for testing;…. and equipping school computers with screen-reading, voice recognition, or other adaptive software or hardware" (U.S. Department of Education, 2011, para 12). In terms of housing on campus, SWDs have the right to "comparable, convenient, and accessible" living quarters at the same cost as their peers (U.S. Department of Education, 2011).

In order to receive accommodations in postsecondary education, students must self-identify or disclose their disability to the appropriate campus officials, most likely a disability services office. An important distinction related to the disclosure of a disability is the difference between visible and nonvisible disabilities (Leake & Stodden, 2014; Leuchovius, 2017; O'Shea

& Meyer, 2016). Visible disabilities, such as mobility impairments that could include the use of a wheelchair or blindness, are apparent to others and are more likely to come to mind when the term disabilities is used (Leake & Stodden, 2014). Nonvisible disabilities is an umbrella term that includes disabilities that are primarily neurological in nature, such as psychological disabilities, learning disabilities, hearing impairments, and autism spectrum disorder. Other types of invisible disabilities include chronic health issues such as pain, fatigue, or dizziness and sleep disorders (Leuchovius, 2017). Leake and Stodden (2014) contend that fewer than 10% of disabilities are comprised of visible disabilities. Invisible disabilities constitute the majority of documented disabilities on college campuses (O'Shea & Meyer, 2016). The predominance of invisible disabilities is important for considerations of diversity on college campuses. Because invisible disabilities are not apparent on campus in the same manner as a visible disability, there may be a faulty assumption that SWDs are rare in college (Leake and Stodden, 2014).

Schreur and Sachs (2014) noted the factors that influence a student's willingness to disclose a disability in postsecondary education. The authors posit that disclosure of a disability is closely connected to "disability acceptance and also to environmental barriers, including the social climate created by the institution, the faculty members, and able-bodied peers" (Schreuer & Sachs, 2014, p. 29). Attitudinal barriers such as an instructor's negative perception of SWDs and the perceived social stigma attached to disabilities can decrease the likelihood that a student with invisible disabilities will self-disclose (Pingry, O'Neil, Markward, & French, 2012; Patton, Renn, Guido-DiBrito, & Quaye, 2016; Yuknis & Bernstein, 2017). Postsecondary administrators and faculty have a shared responsibility to foster an environment that students perceive as safe, secure, and welcoming and that embraces disability as another rich aspect of its campus ecology (Meyers, 2013).

Disability identity theories are an emerging area of study in student development literature (Patton et al., 2016). Attention must be given to the societal and economic benefits of recognizing disabilities as a rich component of diversity in higher education and beyond (Leake & Stodden, 2014). Less minoritization, more social acceptance, and more effort to understand what affects the success of SWDs on college campuses can influence college completion rates and a sense of belonging (Leake & Stodden, 2014; Shallish, 2017). Likewise, as previously noted, students with a college credential or degree will fare better in lifetime earnings. They will have more opportunities for advancing economically and in terms of social mobility.

Overview of Studies

This collaborative study explored the lived experiences of SWDs in the higher education setting in Mississippi. Two specific sub-populations of SWDs, which are students with ASD and students who are d/Deaf and hard of hearing (DHH), were the focus of this companion approach. The overarching goal of both studies was to make meaning of and lend a voice to the postsecondary experiences of the two underrepresented sub-populations of SWDs in Mississippi. Through the contextualization of Labaree's framework and person-environment fit models, our two critical disability studies emphasize "empowerment, agency, and social change" (Vaccaro, Kimball, Wells, & Ostiguy, 2015, p. 26). Postsecondary SWDs are often overlooked in educational research (Lux, 2016). Consequently, this study aimed not only to contribute to the understanding of lived experiences, but also to contribute to the discussion of marginalization of SWDs in higher education by applying a framework of democratic equality, social efficiency, and social mobility.

The team members are part of the doctoral program in education (EdD) and the University of Mississippi (UM), a member of the Carnegie Project on the Education Doctorate

(CPED). Our team members are Krystal Berry and Ronda Bryan. Over the course of the past three years of the program, the two of us discovered a common interest stream. We both have a close relationship to SWDs and we wanted to gain a better understanding of the experiences of students with specific types of disabilities who attend higher education in Mississippi. Krystal's study explored the experiences of students with ASD within the Mississippi community college system. Ronda's study was designed to highlight the experiences of students who are Deaf and hard of hearing (DHH) with and without transfer aspirations within the Mississippi community college system. The two studies aimed to not only highlight the experiences of the sub-populations, but also to identify environmental and campus characteristics that affect their success and retention as students in postsecondary education.

We adopted a qualitative research approach to explore the student experiences and we developed our own set of research questions. Interview questions were developed through the use of Pascarella's General Causal Model of Student Development. Our introduction chapter (chapter I), literature review (chapter II), and methodology (chapter III) are shared. We have both added to the literature by discussing our individual areas of study. Through the development of the companion case studies, we highlighted the lived experiences that SWDs face as members of the post-secondary community in the state of Mississippi. Findings were reviewed through the lens of the ecology model of human development where institutional characteristics play an important role in the experiences and retention of postsecondary students.

Problem Statement

Increasing numbers of college students are reporting a disability (Yuknis & Bernstein, 2017). As previously mentioned, the number of students reporting a disability at degree-granting postsecondary institutions in the United States increased by 5%, up from 6% in 1995 to 11% in

2014 (U.S. Department of Education, 2016). However, the number of SWDs is thought to be underestimated due to lack of self-disclosure by college students (O'Shea & Meyer, 2016; Patton et al., 2016; Yuknis & Bernstein, 2017). Students are purportedly choosing not to disclose for fears of social stigma, concerns over confidentiality, and fear that faculty may hold unfavorable attitudes toward them (Patton et al., 2016; Yuknis & Bernstein, 2017).

Pavan and Shore (2015) noted that "college education for individuals with disabilities is becoming an expected part of transitioning for many people" (p. 11). Unfortunately, a "disability paradox" exists in that although more SWDs enroll in postsecondary institutions, they often remain invisible within institutional discourse and working practices such as school websites, classroom discussions, pedagogical considerations and the availability and implementation of accommodations (Gabel et al., 2016, p. 66; Meyers et al., 2013). Additionally, postsecondary institutions continue enrolling SWDs yet overlook aspects of intersectionality (Patton et al., 2016; Yuknis & Bernstein, 2017). Disabilities are viewed as a mono-dimensional characteristic and not considered "on par with other sources of disadvantage" such as race or ethnicity, gender, social class, or sexual status (Liasidou, 2014, p. 123; Yuknis & Bernstein, 2017). Huger (2011) made the argument that SWDs are not different from other students - they change their majors and they are interested in other aspects of student life such as international studies, study abroad opportunities, and student clubs and organizations. The discussion of disabilities should be an interwoven topic at the postsecondary level. Underrepresentation of SWDs at the postsecondary level coupled with higher attrition rates causes an impetus to employ an "intersectional perspective" where "multiple sources of social disadvantage on the lives and educational trajectories" of SWDs will be used (Liasidou, 2014, p. 124; Yuknis & Bernstein, 2017).

Mississippi has a higher percentage of individuals with disabilities in comparison to the national average (MSPE, 2014). While literature and research points to the benefits of inclusive educational environments and workplaces, the actual understanding of how SWDs in Mississippi experience college life are under studied and generally overlooked, not unlike their counterparts throughout the country (Peña, 2014). Knowing the benefits of inclusiveness is not enough to change the structural and environmental issues that affect the social mobility, social efficiency, and democratic equality of SWDs in Mississippi. There is a notable gap in research literature that highlights experiences of students with a disability at a state level. Likewise, a major hindrance affecting the development of policies and practices that support the development of SWDs is the general absence of dedicated literature that supports student affairs professionals, faculty, college personnel and other practitioners (Cullen, 2014). More research is needed to facilitate members of the higher education community to move beyond a basic understanding of the legal implications required for working with this population of students (Peña, 2014, Fleming, Oertle, Plotner, & Hakun, 2017). A richer appreciation of the social and environmental factors that affect SWDs on college campuses should be a goal for all institutions that aim to improve student retention and encourage academic success (Fleming et al., 2017).

Research related to postsecondary experiences of the two sub-populations of minoritized students in Mississippi is noticeably missing from scholarly bodies of research; students with an autism spectrum disorder and students who are DHH are overlooked at the micro level. Finally, a significant body of research related to SWDs has focused on aspects of accommodations, access, and student support services. Unlike the numerous studies on experiences of racial or ethnic marginalization, which focus on issues of "academic and social supports, identity centers, scholarships, and alumni events," the literature focusing on the social and environmental

structures and barriers that influence academic success for SWDs is limited (Fleming et al., 2017; Leake & Stodden, 2014; Shallish, 2017, p. 21). As Lux (2016) posited, "without a generalizable understanding of how [SWDs] experience and construct meaning from various environmental contexts" (p. 7) the problem of practice is perpetuated. Patton et al. (2016) argue that "being alert to the ways that campus policy, architecture, organization, and people create barriers for students with different abilities is another important role for student affairs educators" (p. 241).

These studies explored students with two specific invisible disabilities from a social and environmental context, therefore, adding to the existing literature used for making decisions that affect policies and procedures and influence student development and academic success. The studies addressed the problem of practice that postsecondary institutions in Mississippi will continue to enroll students with invisible disabilities without a generalizable understanding of how the two populations experience and make meaning of their educational environments (Lux, 2016). Additionally, the studies addressed the problem of practice of postsecondary institutions continuing to focus primarily on accommodations and access issues without focusing on issues of social integration, a sense of belonging, self-advocacy and environmental barriers (Shallish, 2017).

Purpose of Studies

Both studies in this companion study explored the experiences of students from sub-populations of minoritized students in postsecondary institutions in Mississippi. The overarching purpose was to give a voice to the experiences of students with an autism spectrum disorder and those who are DHH. By exploring the lived experiences of students among these sub-populations, the companion studies contribute to existing literature on SWDs and, more

specifically, on students within the two sub-populations in the state of Mississippi. The studies aimed to highlight the significance of campus ecology and environments on student development and success. To this effect, our findings contribute to research surrounding campus climate for "new - or newly recognized - populations" and subsequently to our commitment to social justice, equity, and fairness (Renn & Patton, 2011, p. 253).

From our collective work, we aim to influence post-secondary institutions in Mississippi to consider the policies, procedures, environments, and approaches toward students with not only the specific sub-set of disabilities we have explored, but all SWDs on Mississippi campuses. Specifically, the applications of the findings are meant to move beyond the scope of Section 504 and the legal requirements for providing accommodation. A significant amount of research on the influence of social and environmental factors on retention and academic success exists; however, for SWDs in higher education, the emphasis has mostly surrounded "accommodations, access, and support services with little attention paid to the social aspect[s]"of college life (Fleming, Oertle, Plotner, & Hakun, 2017; Shallish, 2017). With greater awareness of the specific findings ascertained through the research, institutions can develop more intentional, considerate, and robust approaches within the college environment that encourage social and academic integration, sense of belonging, inclusion in campus life, and student success.

Additionally, the findings of the two studies can be used as a foundation for further exploration of other minoritized populations that exist on community college campuses in Mississippi. Through the lens of the ecology model of human development, post-secondary institutions can glean more about how students experience campus life and what ecological niches support student success (Renn & Patton, 2011). Finally, by utilizing Pascarella's General

Causal Model of Student Development as a guide for the interview protocol, the studies contributed to an otherwise limited application of the model for studying SWDs.

Practitioner Perspective

Krystal. As the parent of a child on the autism spectrum, I am exceedingly interested in the experiences of individuals with an autism spectrum disorder. The challenges faced by my son, and others with ASD, are complex and stressful. Social communication deficits, narrow interests, and challenges navigating the "noisy" world around us characterize the daily lives of our family and many others. Despite the challenges inherent in ASD, the minds of those who are neuro-diverse should be embraced, nurtured, and understood. Like any parent, I want the most productive and joyful life for my child. That entails understanding ASD, knowing rights as they are set out under IDEA, and advocating for the services and supports that that will ensure my son, as well as other children like him, will have the same chances as neuro-typical children.

As a higher education practitioner and former college instructor, I recognize the challenges that confront individuals with ASD in a postsecondary setting. My research interest has always rested with postsecondary education and the success of students. After my son's diagnosis in 2013, I began to research more about ASD in higher education and found that most of the available literature focused on K-12 education or accommodation requirements set by law. The extant literature was not extremely helpful for understanding what experiences my son and others with ASD might face in the future as potential postsecondary education students. Therefore, I started a journey to learn more about students with ASD in higher education. My passion and interests have led me to speak at faculty forums, ADA conferences, and parent support groups. Regardless of the event or the audience, each of my presentations have been met

by an underlying question – what can be done to help students with ASD succeed and graduate? This study aimed to identify and provide answers to that question.

It has become my personal mission to influence institutions to look beyond the legal requirements of providing accommodations, and instead look at factors such as social integration, self-advocacy awareness, and sense of belonging that are so often overlooked for individuals with autism spectrum disorders. These issues are especially significant for this population of students since ASD is often defined as a neurological disorder that affects social communication. By better understanding the experiences students who have gone through postsecondary education prior to my son, I can better contribute to his future and to the lives of the many students with ASD in the state of Mississippi. As a practitioner, I can share the findings and recommendations of this study with community colleges throughout the state of Mississippi in an effort to enhance existing institutional efforts that support students with ASD in the college environment. As a scholar, I can continue to build on this study's findings by expanding the understanding of DSS personnel, faculty, college administrators, and parents of children with disabilities.

Ronda. As the former Deaf Services Coordinator and current American Sign Language instructor at the University of Mississippi, I recognize the potential service opportunities my current ASL students and I have and the many ways we can meet the needs of our students and community members who are DHH. Legally mandated accommodations were not the focus of this study. My intent was to shed light on the experience based strategies students who are DHH have developed which have supported their academic success, as well as, the barriers that threatened that success. Many years of experience in this field has afforded me the knowledge of

the many difficulties students who are DHH face, and the most challenging by far is communication. Seigel (2008) provided a powerful statement that guides my work:

> To communicate completely and freely is to be included in the decision-making process of our democracy, to be a member of the commonwealth. There is not a hearing child in this nation who must think, even for a second, that each day and year she goes to school, she must secure anew her right and need to communicate. Deaf and hard-of-hearing children are entitled to the same happy ignorance (p. 257).

Kluwin, Stinson, and Colarossi (2002) examined the socialization process of students who are DHH and determined that, in public mainstream settings, students who are DHH, because of language barriers, do not enjoy the same social interactions that lead to a sense of belonging and positive self-esteem that their hearing peers experience. Gallaudet University, the National Technical Institute for the Deaf, and Southwest Collegiate Institute for the Deaf are the three largest postsecondary institutions founded with the unique needs of the DHH population in mind (Leigh, Andrews, & Harris, 2015; Marschark, Lampropoulou, & Skordilis, 2016). At these institutions students who are DHH associate with DHH peers, are taught by DHH instructors, and witness decision making by DHH administrators, however, the overwhelming majority of students who are DHH attend public mainstream institutions (Leigh et al., 2015). I teach under The School of Applied Sciences Communication Sciences and Disorders (CSD) department and they are interested in program development that would support not only our DHH student population but also the local and state populations. Findings from this study will inform their efforts. Because I am a certified American Sign Language interpreter, I was able to interview my research participants without the need of an interpreter. If an

interpreter were needed, he or she would more than likely know and work with the participant, which could impact the candidness of their responses.

Experiences of students with ASD in the Mississippi community college system. The main purpose of this study was to gain a deeper understanding of how students with ASD experience the community college setting in Mississippi. Students with ASD more frequently attend community colleges than four-year institutions (Roux, et al, 2015), thus creating the potential for an influx of students with ASD in community college systems. The analysis of the combined lived experiences of research participants with ASD helped identify student-related, structural and organizational, and environmental themes that affect academic success at the community college level. Because research suggests that students with ASD are less likely to complete post-secondary education than their neuro-typical peers, it is important to look more closely at ways to prevent student attrition. The primary goal of the study was to contribute to the literature that addresses lived experiences of students with ASD in higher education, specifically in the Mississippi community college system. The study also aimed to provide recommendations, which can be applied to the environmental and social structures in a community college environment and can subsequently support academic success for students with ASD. Data was collected through semi-structured interviews and was analyzed and organized into primary themes. The study was guided by three research questions:

1. What are the experiences of students with ASD within the community college system in Mississippi?
2. How do the experiences affect the students' perceptions of a successful degree completion?

3. What do students with ASD believe can be done within their college to support their educational endeavors?

Experiences of students who are DHH in the Mississippi community college system. The purpose of this study is to highlight the experiences of students who are DHH in the Mississippi community colleges system in hopes of providing higher education administration insight on how to best serve this population toward degree attainment, as well as, encourage their potential transfer aspirations. The majority of students who are DHH attend community colleges, due in large part, to their open enrollment and vocational emphasis (Erickson, Lee, Schrader, 2016). Currently, 90% of community colleges nationwide serve d/Deaf students; however, completion remains problematic (Raue & Lewis, 2011). Attrition is a well-documented problem that is primarily credited to many pre-entry academic and communication issues. This study intends to explore DHH students' perspectives of how they are successfully navigating the postsecondary environment, what barriers threaten their success, and what they believe could be done to facilitate completion and support potential transfer aspirations. The results from this study will add to the scarce literature currently found on DHH students' assessments of their postsecondary experiences, specifically in the Mississippi community college system. Three research questions will guide this study:

1. What are the experiences of students who are DHH within the community college system in Mississippi?
2. How do the experiences affect the students' perceptions of a successful degree completion?
3. What do students who are DHH believe can be done within their college and in four year public universities to support their educational endeavors.

Conceptual Framework

Phenomenological inquiry methods influenced the approach to the study and were used for gaining a richer understanding of the lived experiences of both sub-populations of students. Pascarella's General Causal Model of Student Development provided a framework for understanding environments and student development in college and it served as the guide for the interview protocol for the two sub-populations of the studies. As a model, it is less restrictive and allows for exploration of both internal and external factors that affect students' college experiences. The model is typically described as belonging to the person-environment category of student development theories. These studies will examine the results from the data collection by applying the person-environment approach of the ecology model of human development, which "can be considered integrative in the ways that [it] account[s] for multifaceted contexts for the development of the whole person (Evans, Forney, Guido, Patten, & Renn, 2010, p. 159). Bronfenbrenner's human development ecology model will be utilized as a lens through which this study examines the lived experiences of the three populations of the studies in general. A more detailed explanation of both frameworks is outlined in Chapter II. Both models belong to the person-environment family and guide the research in two ways: interview question development and discussion of findings as they primarily relate to external factors of higher education.

Definitions

Academic success: For this study, academic success means retention (persistence) from one semester to the next, academic attainment where students satisfactorily progress throughout their studies from one course to another, and student achievement (completion) where students proceed to the next level of their program of study or to college graduation (Cuseo, n.d.).

Autism Spectrum Disorder (ASD): The Center for Disease Control and Prevention (CDC) defines ASD as a "developmental disability that can cause significant social, communication and behavioral challenges...people with ASD may communicate, interact, behave, and learn in ways that are different from most other people" (CDC, 2016, para. 1).

Comorbidity: First defined in 1970, comorbidity is the "co-occurrence of two or more disorders in the same individual at the same point in time" (Science Direct, 2018).

deaf: According to the National Association of the Deaf (NAD, n.d.) is defined as, the audiological condition of not hearing. Lowercase "d" deaf people do not identify as members of the Deaf community.

Deaf: According to the NAD (n.d.) is defined as a group of people who share a language (American Sign Language) and culture. Capital "D" deaf denotes membership in the Deaf community.

Disability: (1) Defined by the Americans with Disabilities Act (ADA) as "physical or mental impairment; or being regarded as having such an impairment regardless of whether the individual actually has the impairment" (ADA National Network, n.d.). (2) Defined by Meyers (2013) as "a social construct" that affects the "the full lived experience in terms of functional limitation and the social, cultural, and political consequences" (p. 6). (3) The World Health Organization (WHO) (2011) refers to disability as "the negative aspects of interaction between individuals with a health condition (such as cerebral palsy, Down syndrome, depression) and personal and environmental factors (such as negative attitudes, inaccessible transportation and public buildings, and limited social supports) (p. 7).

Hard of Hearing: According to the NAD (n.d.) is defined as a person with a mild to moderate hearing loss that may or may not identify as members of the Deaf community.

Individuals with Disabilities Education Act (IDEA): According to the U.S. Department of Education, Office of Special Education Programs (OSEP), IDEA is a "law that makes available a free appropriate public education (FAPE) to eligible children with disabilities throughout the nation and ensures special education and related services to those children" (U.S. Department of Education, n.d.)

Minoritization: refers to the process of student minoritization and an understanding that minority status is a social construct and is dependent on societal contexts (Stewart, 2013).

The Americans with Disabilities Act: Commonly referred to as the ADA. A civil rights law that prohibits discrimination and "gives civil rights protections to individuals with disabilities that are like those provided to individuals on the basis of race, sex, national origin, and religion. It guarantees equal opportunity for individuals with disabilities in employment, public accommodations, transportation, State and local government services, and telecommunications" (United States Department of Education, 2017).

Chapter Summary

Chapter I explored the prevalence of SWDs in postsecondary institutions in the United States. The chapter also highlighted the need for a better understanding of two sub-populations of SWDs. The chapter provided an overall problem statement that applies to the two companion studies. Both studies were more clearly defined in the purpose of studies section. The conceptual framework highlighted the influence of phenomenological inquiry methods, which both studies used for gaining a better understanding of the sub-populations. Finally, a robust list of definitions were provided to assist the reader. Chapter II provides an extensive literature review that explored disabilities in postsecondary education through various frameworks. The chapter highlights both sub-populations of the companion dissertations. Chapter III provides the

reader with a more detailed explanation of the research framework used by both studies. Chapter VI explores the independent research findings related to the experiences of students with autism spectrum disorder in Mississippi community colleges. Chapter V sheds additional light on the findings provided in Chapter VI and it offers implications for practice and research that will support students with ASD in community colleges.

CHAPTER II

LITERATURE REVIEW

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The following chapter examines relevant literature related to SWDs in higher education. The chapter begins by reviewing differing perspectives of disability, where the medical model of disabilities is compared with the social model of disabilities. The discussion then moves to an explication of David Labaree's (1997) three educational goals as a means to gain better understanding higher education's role as a private or public good for SWDs. The chapter then turns to a detailed description of two relevant person-environment interaction models and their application to the study of SWDs in higher education. From the person-environment models, a more refined discussion of social and environmental influences that affect SWDs is provided. Finally, the chapter highlights relevant literature related to the two sub-populations of study: students with ASD and students who are DHH.

Disability Theoretical Frameworks

Multiple theoretical perspectives on disability exist. By utilizing models of disabilities, it is possible to organize a platform from which to understand disabilities, people with disabilities, and approaches for developing strategies that may benefit individuals with disabilities (Michigan Disability Rights Coalition, n.d.). Two widely used models used in "higher education practice

and scholarship" are the medical and social construction models (Kimball, Vaccaro, & Vargas, 2016, p. 176; Brabazon, 2015). In addition to the aforementioned models, additional perspectives on disabilities have brought about models such as: the expert/professional; rights-based; tragedy/charity; religious/moral; economic; customer/empowering; and rehabilitation. Each of the models are loosely connected to or offshoots of the *medical* or *social* models (Michigan Disability Rights Coalition, n.d.).

In the medical model, disabilities are labelled and managed as a means to help individuals participate in society. The medical model "problematizes the individual" and increases the likelihood that individuals with disabilities will be stigmatized in society and "devalued within diversity efforts" within postsecondary institutions (Kimball et al, 2016, p. 176; Brabazon, 2015; Gabel, Reid, Pearson, Ruiz, & Hume-Dawson, 2016; Shallish, 2017). In social identity development - the process where individuals become more aware of their social identity such as race, gender, ethnicity, religion, ability, etc. and how those identities affect their interactions with others - the exploration of historical and continued treatment and attitudes that others have towards individuals with disabilities is made through the concept of ability privilege (Evans, Forney, Guido, Patton, & Renn, 2010, pp.228-229, p. 242). Ability privilege is another external factor that puts SWDs at a disadvantage. Specific use of language (e.g. indicating someone with a disability is less than normal), terminology (e.g. "learning disabled, hearing impaired, brain injured, handicapped, afflicted, wheelchair bound") and assumptions of normative ways of doing (e.g. moving about, speaking, learning, etc.) serves as an oppression to those with disabilities (Evans, et.al. 2010, p. 242-243). The use of the medical model, where the labelling of disability is considered to be in itself a disabling factor, is discouraged.

The social model of disability views disabilities as a social construction (Kimball et al, 2016). Rooted in the civil rights movement, the social model of disability focuses on the oppressive nature of social structures and terminology used in the medical model. Important in the social model is the emphasis on individual impairments and the disabling factor of social structures such as buildings (Brabazon, 2015); the model is concerned with "structural features that construct inclusion and exclusion and constitute disability as a stigmatized difference" (Gabel et. al, 2016). Research using a "disability interpretive lens" (Creswell, 2013 p. 34) uses the social model of disability, where individuals are viewed on a continuum of impairments rather than labelled disabled or not disabled, is a major concern for the "minoritarian struggle" for rights and the subsequent restructuring of educational environments. (Brabazon, 2015, p. 29; Matthews, 2009, p. 231). Such efforts to reduce the stigmatization of disabilities through language have been referred to as "person first" language (Degeneffe and Terciano, 2011, p. 163). For understanding the largest minority in existence (MSPE, 2014), the social model is an effective tool for "manag[ing] impairments" in educational institutions and workplaces (Brabazon, 2015, p. 29). Understanding the environment and its effects on individuals with disabilities is more easily measurable and observed and can be viewed in the social model.

Arising from the social model of disability, "inclusion is the antidote to the long-standing marginali[z]ation and disparagement" of individuals with disabilities (Liasidou, 2014, p. 122) who are often confronted by systemic inequities (Meyers, Jenkins Lindburg, & Nied 2013). Such inequities often flow into higher education institutions, where "social stratification negatively impacts" individuals with disabilities (Meyers et al., 2013, p. 103). The Association of Higher Education and Disability (AHEAD) utilizes an inclusive definition of diversity, which encompasses "ways of thinking, being, and doing that can be associated with physical, cognitive,

emotional, or sensory differences, all of which can influence world-views, communication styles, and social relationships" (Gabel et al., 2016, p. 66). The type of model adopted may then have a more significant impact on the approach to diversity, the policies, and the strategies that affect individuals with disabilities.

As Brabazon (2015) noted, there are too few men and women with impairments as students and faculty at the collegiate level. Therefore, there is no "power bloc or agitating community lobbying for change…managerial blind spots are perpetuated" (p. 25). The underrepresentation of students or faculty members leaves the disability community at a major disadvantage unless postsecondary institutions move beyond the recognition of disabilities as a description of individual deficiencies where the agenda is focused on "assimilationist practices" (Liasidou, 2014, p. 124). Rather, the higher education agenda should view disability as a social justice and equity issue (Liasidou, 2014) where stigma surrounding disabilities will be challenged and where a new counter narrative will emerge (Meyers, 2010).

David Labaree (1997) introduced a framework that explores education as private and public good. For the research team, Labaree's work illuminated critical areas of ethics, equity and social justice by detailing three educational goals of democratic equality, social mobility, and social efficacy. When applied to disabilities, the framework allowed for a more robust exploration of the multiple forms of social disadvantage that confront individuals with disabilities (Liasidou, 2014). The framework also allows for the discussion of disabilities to be moved beyond the focus of higher education as a public good (i.e. focus on accommodations per the law) to that of a private good for individuals with disabilities (i.e. economic and social mobility). As such, the framework is a useful foundation for exploring the approach to SWDs in

higher education beyond a singular focus to one that encompasses a multi-faceted viewpoint (Labaree, 1997; Shallish, 2017).

Social Justice and Equity Framework

A review of David Labaree's (1997) three educational goals provides insight for the development of social justice strategies or initiatives that would encourage access, inclusiveness, belonging, and stronger sense of success for students and faculty with impairments (Brabazon, 2015; Labaree, 1997). In this framework, particular emphasis is placed on democratic equality, social efficiency and social mobility. Disability services offices (DSO) are no longer the only entity on campuses that should support measures to support SWDs. Rather, "disability work should be the responsibility of all units on campus" in order to better confront issues surrounding academic and social integration of SWDs (Huger, 2011, p. 3). To serve efforts of rethinking a campus culture and to highlight the multifaceted purposes of higher education for SWDs, a review of the three educational goals have been described.

Democratic equality. Labaree (1997) defined three goals for American higher education. Of those competing goals, democratic equality is the first lens. Democratic equality concerns institutional approach to creating good citizens. According to Labaree (1997),

> a democratic society cannot persist unless it prepares all of its young with equal care to take on the full responsibilities of citizenship in a competent manner...in the democratic political arena, we are all considered equal (according to the rule of one person, one vote), but this political equality can be undermined if the social inequality of citizens grows too great (p. 42).

Educational rhetoric was strongly based on the idea of democratic equality. The underlying themes of promoting citizenship, equal treatment and equal access are still prominent

interests today. As such, the three themes of democratic equality and their connection to students with invisible disabilities are of interest and importance. As Terzi (2007) stated, "being educated responds to some essential basic needs of human beings, which, if unmet, cause substantial harm. But being educated is also foundational to other capabilities as well as future ones, thus expanding individuals' freedoms" (p. 759).

Specific legislations across the international community are in place to ensure equal rights and opportunities for SWDs (Schreuer & Sachs, 2014, p. 27). In the United States, the Americans with Disabilities Act Amendments Act of 2008 redirects the focus away from the student's need to prove his or her disability and instead directs the focus to the responsibilities of the educational systems to make the necessary accommodations and ensure equal access to all educational opportunities (Allies for Inclusion, 2013a; Wright & Wright, 2016). A call to develop proactive provisions that encourage participation in education and social life while not needing to disclose disability is a focus of accommodation practices. Utilizing universal design for the development of assessment, instruction, services, technology, and physically accessible spaces is crucial for achieving an atmosphere that promotes equality, a stronger sense of belonging, a sense of safety, and a more level-playing field for all students (Schreuer & Sachs, 2014, p. 28; Vaccaro, Daly-Cano, Newman, 2015, p. 671). Article 24 of the United Nations Convention of the Rights of Persons with Disabilities (United Nations, 2006, art 24) articulates that inclusive education should be provided for all students at every stage of his or her educational endeavor. As such, those involved with the teaching, guidance, policy making, and administration of institutions should be trained to identify and to better understand universal education principles (Allies for Inclusion, 2013b, p. 108; Orr & Hammig, 2009).

Universal education, often known as universal design, is a concept that was first introduced in the field of architecture in the 1980s by Ronald Mace. It was primarily introduced to focus on creating architectural design that would support the needs of and eliminate the barriers for people with physical disabilities. Mace subsequently found that such modifications benefited all users, not just those with disabilities. It was during the late 1990s when universal design was introduced to higher education (Orr & Hammig, 2009, p. 182; Zeff, 2007, p. 27). Zeff (2007) revealed that the development of Universal Design for Learning (UDL), also referred to as UD, was a response to the "expansion of the 1975 Education for Handicapped Children Act (now the Individuals with Disabilities Education Act)", which guarantees the right to a free and accessible public education. (p. 29). The main three tenets of UDL, derived from Mace's original idea of universal design, are: (a) multiple means of representation, (b) multiple means of expression, and (c) multiple means of engagement, which are aspects of citizenship (Zeff, 2007, p. 30). These principles are important for the democratic equality goal of higher education in that "a universally designed teaching and learning environment is inherently more inclusive and likely to meet the needs of a more diverse clientele" (Orr & Hammig, 2009, p. 183).

It would seem intuitive for higher education institutions to pay more attention to such design principles in order to create a more inclusive and accessible environment where a sense of belonging is promoted and where students feel that fewer barriers exist to their educational pursuits. Additionally, the need to disclose certain disabilities, particularly invisible disabilities, would be lessened in environments that utilize the universal design approach. Disclosure of a disability has implications to a student's exposure to stigmas and biases surrounding their specific disability and to their own feelings of independence (Brabazon, 2015).

SWDs may choose not to disclose and, therefore, accommodations and supports may not be made available (Neely & Hunter, 2014). When higher education institutions adopt a culture of universal design they create an atmosphere of disability acceptance, which can encourage the disclosure of disabilities (Schreuer & Sachs, 2013). At the same time, students who choose not to disclose will likely not be as affected when a university focuses on UD in its classrooms and other institutional practices. As Brabazon (2015) noted, "…universal design is a mode of meta-empowerment so that students (and citizens more generally) do not have to 'declare' a disability to receive an equitable and high quality learning environment" (p. 33).

Liasidou (2014) discussed the need to foster UD and other inclusive pedagogies in higher education. The author posited that "enhancing accessibility for all is primarily a social justice issue" and the development of UD curriculum and methodologies should be guided by the idea of "destabilizing power inequities" (p. 128). Liasidou (2014) also explained that:

> …professional development for social justice and inclusion on the grounds of disability should constitute an integral aspect of attempts to enhance accessibility in higher education. That said, it is imperative to enhance staff members' as well as non-disabled students' understanding of the complex nature of disability experience and the needs of disabled individuals to create positive attitudes and to enhance disability awareness in terms of disabled people's rights and entitlements as they are stipulated in international laws and conventions (p. 130).

Higher education practitioners should be mindful of the changing postsecondary landscape and the growing participation of individuals with visible and invisible disabilities. Nondiscriminatory practices, appropriate accommodations, instructional design, and transition assistance are imperative. The key to ensuring student success is to develop and promote

collaboration across all areas of the university (Korbel, et al, 2011). Disability should be viewed as another form of diversity and should be treated as such in order for democratic equality to become realized. Leake and Stodden (2014) supported the consideration of disability as a component of diversity in postsecondary institutions. Reasons to support the consideration are (a) students with invisible disabilities are not seen as being impaired and, therefore, leave the impression that having an impairment is rare on campuses, and (b) the stigma surrounding disabilities is likely to prevent self-disclosure, which affects the availability of peer support, survey estimates of the number SWDs, and the obtainment of supports and accommodations required for college success (p. 400).

Social efficiency. Social efficiency is a goal where higher education is perceived as a public good from the viewpoint of the employer and taxpayer. In terms of educational goals, social efficiency concerns each citizen's ability to contribute to the economy (Labaree, 1997, p. 42). From this goal, education is seen as not only expanding on the capabilities of an individual (Terzi, 2007, p. 460), it is seen as preparing students to fulfill a need in the market that will create benefits to the economy by fulfilling a need, paying taxes at each governmental level and by spending money to drive the economy. This goal has influenced the educational system by focusing on vocationalism and educational stratification (Labaree, 1997, p. 46).

Extant literature on the use of higher education to help prepare students with invisible disabilities for the workforce is limited. Much of the literature focuses on the employer perceptions of hiring individuals with disabilities and the subsequent accommodations that may be needed. Also, despite the legal mandates set in place to avoid discrimination against workers with disabilities, the employment outcomes for SWDs are still weak; in comparison to their non-disabled counterparts, SWDs are "unemployed, underemployed, have frequent job changes, and

do not enjoy the same quality of life" (Webb, Repetto, Seabrooks-Blackmore, & Patterson, 2014, p. 231). Holwerd, Brower, Boer, Groothoff, & van der Klink (2014) revealed that being employed is a key indicator of societal success but SWDs struggle to find continuous employment.

Numerous employer concerns persist regarding the hiring of people with disabilities. Employers seem to be more concerned about hiring individuals with invisible disabilities, for example mental and emotional conditions, than physical disabilities. A perception that employees with disabilities will result in lower productivity, higher absenteeism, lack of necessary skills, or the need for greater supervision versus their non-disabled counterparts is another major concern of employers. Employers also seem to be unaware of how to find qualified employees with disabilities, for example through agencies, etc. Another concern is a lack of awareness for introducing accommodations to support the needs of SWDs and lack of understanding of the obligations of the Americans with Disabilities Act. Concern surrounding the required cost of insurance coverage and a lack of familiarity with working with individuals with disabilities are additional uncertainties that cause significant barriers (Henry, Petkauskos, Stanislawzyk, & Vogt, 2014).

In order to reduce the disparity among the continuum of impaired labor market participants, employers must perceive benefits of hiring an inclusive and diverse workforce (Henry, Petkauskos, Stanislawzyk, & Vogt, 2014, pp.238-239; Brabazon, 2015). Research suggests positive benefits for companies that make a firm practice of hiring a diverse workforce that includes people with disabilities. According to Hartnett, Stuart, Thurman, Loy, and Batiste (2011), "benefits derived by employers include the ability to retain quality employees, increased company profitability, and an avoidance of costs associated with hiring and training a new

employee" plus an improved organizational culture that fosters "a sense among all employees that employers recognize both the value of the individual worker as a human being, and the inherent social benefits of creating and sustaining an inclusive workplace" (p. 17).

From an educational standpoint, the question to be considered is, how does a postsecondary institution (two- or four–year level) promote the hiring of SWDs as a means to developing the local economy and benefitting the public good? Henry et al. (2014) suggested that "vocational rehabilitation (VR) and other disability employment service providers need to develop effective business partnerships to help employers recognize the contributions that people with disabilities can make to the workplace" (p. 238). The same charge could be placed upon educational institutions - to develop strong relationships with businesses and encourage the hiring of SWDs. Additionally, postsecondary institutions must explicitly prepare students with invisible disabilities, particularly ASD, for the nuanced world of work. Preparation for resume writing, job interview etiquette, and post-hiring issues such as dress codes, lunch break duration, placement of personal items and other workforce transitions that are anxiety inducing should be considered a major role by postsecondary institutions since they are ultimately preparing students for employment (VanBergeiijk, Klin, & Volkmar, 2008, p. 1367).

In community college systems, Career and Technical Education (CTE) programs are largely focused on training students to be prepared for the needs and wants of the industry. CTE programs have long been considered a valuable route for secondary SWDs. CTE at the postsecondary level is equally important. Students with disabilities who complete CTE programs are twice more likely to find gainful employment. The pathway to employment opportunities and a more satisfying adult life can be developed by "learning the tools needed of a particular profession" (Grindal, Dougherty, & Hehir, 2013, para. 8). Educational institutions

should also consider how to develop training for local industries that would shed light on Americans with Disabilities Act (ADA) obligations, uncertainties involved when hiring employees with disabilities, and creating greater networks of job shadowing, mentorships and work experiences. Exposure to the diverse population would seem to alleviate concerns that were previously mentioned. As such, educational goals of achieving social efficiency could become a reality for all students.

Social mobility. Unlike the goal of preparing students for the economy and public agenda, social mobility is the educational goal that focuses resources on the private good of individual students. The focus is on creating a competitive advantage for the student rather than for the social system in which they will work. Labaree described the goal as a bottom up approach as opposed to the top to bottom approach with the social efficiency goal (Labaree, 1997, p. 50).

A release from the United States Department of Labor's (DOL) Bureau of Labor Statistics revealed that the employment-population ratio for individuals with impairments was 17.1% in 2014; the DOL report did not identify the different types of disabilities, rather all disabilities were combined for the data on employment. At all academic achievement levels, persons with disabilities were more likely to be unemployed or employed only part-time. Workers with disabilities were more likely than their peers with no disability to work in "transportation and material moving occupations; they were less likely to work in management, professional, and related occupations" (United States Department of Labor, 2015, para. 5-9). In comparison to workers with no disability, individuals with disabilities participated in the labor force as self-employed in larger proportions (United States Department of Labor, 2015). Through Attwood's (2015) research, it has been found that essentially no career is unobtainable

but some career paths are more suited, as is the case with all individuals with or without impairments. However, it is possible to discern from the DOL (2015) report and from Attwood's (2015) suggestions that postsecondary degrees or vocational training are important for workforce participants with disabilities.

In much of the same manner that social efficiency goals could prompt strong relationships with employers so that SWDs could more likely find employment, encouraging SWDs for professions could encourage social mobility. The educational goal of social mobility may be more considerate of a student's ability to climb the proverbial social hierarchy in contrast to the social efficiency goal of developing students to fill a need in the workforce and contribute to society through increased spending capabilities and taxes paid. Students who find gainful employment may minimize the feelings of social exclusion that tends to surround students with impairments (Skellern & Astbury, 2012, p. 60). Research by Berry and Domene (2015) identified difficulties finding access to employment for SWDs. Limited opportunities for internships, summer employment, off-campus employment experiences, limited transition support services, vocation prep supports, and job coaches hinder a student's ability to find employment and, prospectively, social inclusion (Berry & Domene, 2015).

For students who may be otherwise socially excluded, upward mobility can be encouraged through the use of accommodations that support the student's possibility for learning. Therefore, bringing about an atmosphere that allows students to learn could result in a better life prospect and a hierarchy within the subgroup of disabilities. Social proximity to SWDs decreases the negative stereotypes that exist. When universities offer access to students, which seem more of a democratic equality goal, they in turn encourage a model of social mobility whereby students are able to participate in an otherwise exclusive model of higher

education. Lack of contact between SWDs and those without disabilities serves to encourage the development of negative stereotypes, perception, attitudes, and knowledge of how to work with disabled individuals. Such a lack of proximity and social closeness does not promote social mobility (Shannon, Schoen, & Tansey, 2009). Through collaborative and creative efforts among students, parents, educational staff, adult service agencies vocational/technical institutions, adult education, rehabilitation and independent living centers, and employers, employment rates of SWDs could be increased, thus contributing to the "empowerment and inclusion" of those students (Skellern & Astbury, 2012, p. 66; Council for Exceptional Children, 1997).

In addition to employment and social inclusion into parts of society, an educational goal for social mobility for SWDs should also be viewed as expansive learning where opportunities are created to encourage a "full and evocative life" that focuses equally on "social and sexual relationships, a family life and leisure" (Attwood, 2015, p. 306; Brabazon, 2015, p. 44), not historically a part of our view. Such a perspective allows for a more encompassing approach and application of postsecondary educational goals including the services provided to assist SWDs.

Institutions that adopt a democratic equality educational goal are perceived to provide the most conducive environment for success for students with invisible disabilities. Due to the inclusive and accessible nature of the democratic equality goal, social mobility for students with invisible disabilities is also likely to be enhanced. Institutions that adopt a social efficiency educational goal could create opportunities for personal growth and for a quality adult life. Inclusion by means of accommodations, openness, understanding, and UD would need to be incorporated at an institutional level for programs to succeed in educating a workforce that would suit the needs and expectations of their local and regional workforce.

Having explored Labaree's framework and expounded on the critical need to create more equitable, inclusive, ethical, and socially-just post-secondary environments, a review of student development perspectives for students, with particular emphasis on SWDs, is reviewed.

Person-Environment Interaction Models and College Students with Disabilities

Student development theories came to prominence during the 1960s. Understanding student development and growth is critical for efforts to enhance student satisfaction and belonging, which may encourage retention and graduation. Numerous student development and college impact theories serve as the bedrock from which student affairs personnel and other higher education participants view student development. The major categories are: psycho-social; psychosocial/social identity; cognitive; typological; person-environment; integrative; college impact; and adult learning. Each category emphasizes a different perspective or approach on identity development, engagement, and growth. Historically, these theories and models have been predominantly focused on Caucasian students (Long, 2012; Evans et al., 2010).

Within the last twenty years, researchers have studied historically underrepresented groups such as African Americans, women, multiracial, American Indian, Latino, Asian American, gay, lesbian, bisexual and transgender, and non-traditional student groups (Evans et al, 2010). However, limited studies have expounded on student development or college impact models and theories for SWDs in postsecondary education (Gobbo, 2003; Shallish, 2017). Likewise, through a critical content analysis of articles on SWDs published between the years of 1990 to 2010, Peña (2014) found a substantial gap in the topical area coverage and methodological trends of research that explored college SWDs.

Theories and models related to identity development and college impact are integral for appreciating SWDs and their experiences with higher education. New postsecondary students will likely be confronted with the need to adjust intellectually, socially, physically, and emotionally. The individual development process involved with the new expectations and conditions of postsecondary education can be a greater challenge to SWDs. Challenges can include lack of self-disclosure (disclosure of a disability) with campus disability services officers and professors, lack of self-advocacy (communicating own needs), lack of self-regulation (evaluating own performance), and lack of locus of control (sense of empowerment), and lack of self-knowledge (understanding of own strengths, interests, and limitations) (Hadley, 2011; Hong 2015; Mamiseishvili & Koch, 2011; Vaccaro, Daly-Cano, & Newman, 2014), which can influence the development of self-determination (Ankeny & Lehmann, 2011). As SWDs aim to adjust to their new life in college, a "lack of self-determination" may encourage "passive integration", which may lead to "social awkwardness, academic challenges, and psychological stress" (Hong, 2011, p. 210).

Person-environment theories provide a useful framework for contextualizing the experiences of SWDs in college and for gaining a better understanding of college impact on that population of students. These interaction theories do not attempt to explain growth or processes of student development, rather they attempt to "explain human behavior and provide frameworks for thinking about student change and college effects" (Pascarella & Terenzini, 1991, p. 38). Unlike other student development theories, person-environment interaction theories, namely college impact models, are more narrowly concerned with the unique role that college experiences play in student development (Long, 2012). These models focus on "context" by aiming to understand how postsecondary institutions affect student development and how

"student background and individual characteristics of the student foster or impede development" (Long, 2012, p. 51).

Two important person-environment models will now be explored. First, the ecology model of human development will be reviewed. The ecology model suggests that different environments influence a person's development. Like the person-environment interaction theories, the ecology model of human development focuses on how and where development occurs" (Renn & Reason, 2013, p. 123). The ecology model precedes Pascarella's General Causal Model of Student Development (1985), which is more narrowly focused on the college environment and the subsequent effect the institutions have on have on student change.

Ecology model of human development. Ecological theories provide the foundation for understanding why students have different experiences. Campus environments affect similar students in different ways (Renn & Arnold, 2011; Evans et al., 2010). The human development ecology model is focused on the "why and how" rather than the "what" of student growth and change (Renn & Reason, 2013, p. 123). The campus ecology model is another developmental ecology model that used in the study of student change in higher education. The campus ecology model focuses predominantly on campus environments. For purposes of understanding student development and change, the ecology model of human development is most useful (Renn & Reason, 2013)

The ecology model of human development, introduced by Urie Bronfenbrenner (1979), is a theoretical perspective that aims to understand the interaction of a person and his or her environment (p. 3) and how those interactions can influence growth and development (Evans et al., 2010). The model was first applied to child development but has since been adapted to understanding higher education (Bronfenbrenner, 1994; Renn & Reason, 2013). Renn & Arnold

(2003) suggested the application of the ecology models for understanding peer culture in higher education. They posited that the interactive model developed by Bronfenbrenner held immense potential for designing "educational interventions" that could influence and change campus culture (Renn & Arnold, 2003, p. 267).

Under the assumption that development cannot be studied outside the context from which an individual actually develops, the model supports the notion that behavior and development are derivatives of the interaction between the individual and their environment. The model is primarily concerned with human interaction and the environments in which those interactions take place (Renn & Reason, 2013; Renn & Arnold, 2011; Renn & Arnold, 2003). The main tenet of Bronfenbrenner's model suggests that change will only occur when individuals are confronted with "increasingly complex actions and tasks" (Renn & Arnold, 2003, p. 267).

The model has played a key role in student affairs studies since 1978. Its central role waned in the 1990s but found favor again in the early twenty-first century (Renn & Arnold, 2011). The ecology models have a few characteristics and limitations that hint at their limited use in studying student development. First, the ecology models describe processes of development rather than describe steps or levels of development often seen in other models. Within the higher education accountability environment, an emphasis is mostly placed on the "outcome" rather than the "process" or "environment that promotes or inhibits that process (Evans et al., 2010, p. 174). Second, the complexity of studying individuals and their environments poses challenges due to the fluid nature of the institutional environments and due to the peer culture resistance to interventions by administrators (Evans et al., 2010).

Despite the drawbacks previously noted, a particular strength of the model is its flexible application to the development context of a vast array of student types. For example, it may be

applied across different student classification types such as "residential students, commuters, distance and online learners." It may be applied to learners of "different ages", socioeconomic backgrounds, and "life histories" (Evans et al., 2010, p. 173). Renn and Patton (2011) recommended the model's application to "newly recognized" populations such as students of religious minorities, commuters, international students, adult learners and SWDs (p. 253). While these groups have already been identified and have been the subject of studies, "how they experience their campus climate and what ecological niches support their success" is not well documented (Renn & Patton, 2011, p.254).

Bronfenbrenner's theory consists of four components that can hinder or encourage student development. Those components are *process*, *person*, *context*, and *time* (Renn & Patton, 2011, p. 243). Student development can be described as a joint process involving the four components described. "Like other person-environment theories… Bronfenbrenner's ecology of human development illuminates the ways that relationships among individual inputs... may result in observed outcomes, including learning, identity development and behavior" (Renn & Reason, 2013, p. 123).

Process takes place between an individual and his or her proximal environment (Renn & Patton, 2011). Students interact with numerous individuals and groups. Through more increasingly complex interactions, students can influence their environment and their environment can influence the students (Renn & Reason, 2013). *Person* refers to an individual's characteristics such as age, gender, and ability that influences how someone interacts with his or her surroundings and "how someone elicits responses from and responds to the environment" (Renn & Reason, 2013; Renn & Patton, 2011, p. 254). In turn, person also influences whether an individual is involved in various activities or settings. *Context* includes Bronfenbrenner's

original general ecology model, which includes four levels: *microsystems*, *mesosystems*, *exosystems*, and *macrosystems* (Renn & Patton, 2011, p. 254; Bronfenbrenner, 1994). Bronfenbrenner (1994; 2009) likened the four structures of *context* to Russian dolls where the levels are nested together from smallest to largest (i.e. from the individual structure to the societal structure). Each proximal structure pertains to different interactions with one's environment. Renn and Arnold (2003) illustrated these nested layers of student development (see Figure 1).

Microsystems, or immediate settings, are the direct interactions between a student and his or her environment. These include face-to-face and digitally mediated interactions (Renn & Reason, 2013). These types of interactions are the "closest, or most proximal, contexts in which development occurs" (Renn & Reason, 2013, 126). Examples of microsystems might include roommates, family, close friends, a student organization, on or off campus jobs, homework or laboratory groups, community involvement, and peer groups (Renn & Arnold, 2003; Renn & Reason, 2013). Mesosystems, simply described, are the "interactions among microsystems" (Renn & Patton, 2011, p. 254). Postsecondary students are affected by the interactions within and across group. A key influence on student development can be linked to the ease at which a student is able to "move from one peer microsystem to another within the mesosystem" (Renn & Arnold, 2003). Exosystems are described as the "interactions outside the immediate environment but exerting influence on the individuals" (Renn & Patton, 2011, p. 254). These may include influences from a parent or spouse's work spaces. The federal government can also be considered an exosystem (Renn & Arnold, 2003). For example, policies such as Section 504 impact SWDs. Macrosystems, or broad sociocultural factors, are the final and "most distal" of the environmental influences (Renn & Arnold, 2003, p. 272; Renn & Patton, 2011, p. 254). This

level could be considered the "societal blueprint for a particular culture or subculture" (Bronfenbrenner, 1994, p. 40). The macrosystem includes the "historical trends, social factors, and cultural influences" that affect a student's interaction with the other systems in his or her environment (Renn & Reason, 2013; Renn & Arnold, 2003).

Lastly, chronosystem, the element of time, can be understood as "the times in which one lives, the timing of an event in an individual's life, and changes in the person and context over time (Renn & Reason, 2013, p. 130). Development is linked to the timing of events. A college student's age upon entering postsecondary education, his or her married status, his or her family status, and his or her employment status influence social transitions. The timing of macro-level events that have taken place in a student's life will play role in their human development (Renn & Arnold, 2003; Renn & Reason, 2013).

In its entirety, the four components of the ecology model of human development provides a strong foundation for understanding how and when student development and change takes place. Understanding the influences from the context in which they happen is a useful framework for understanding environmental influences that affect today's SWDs.

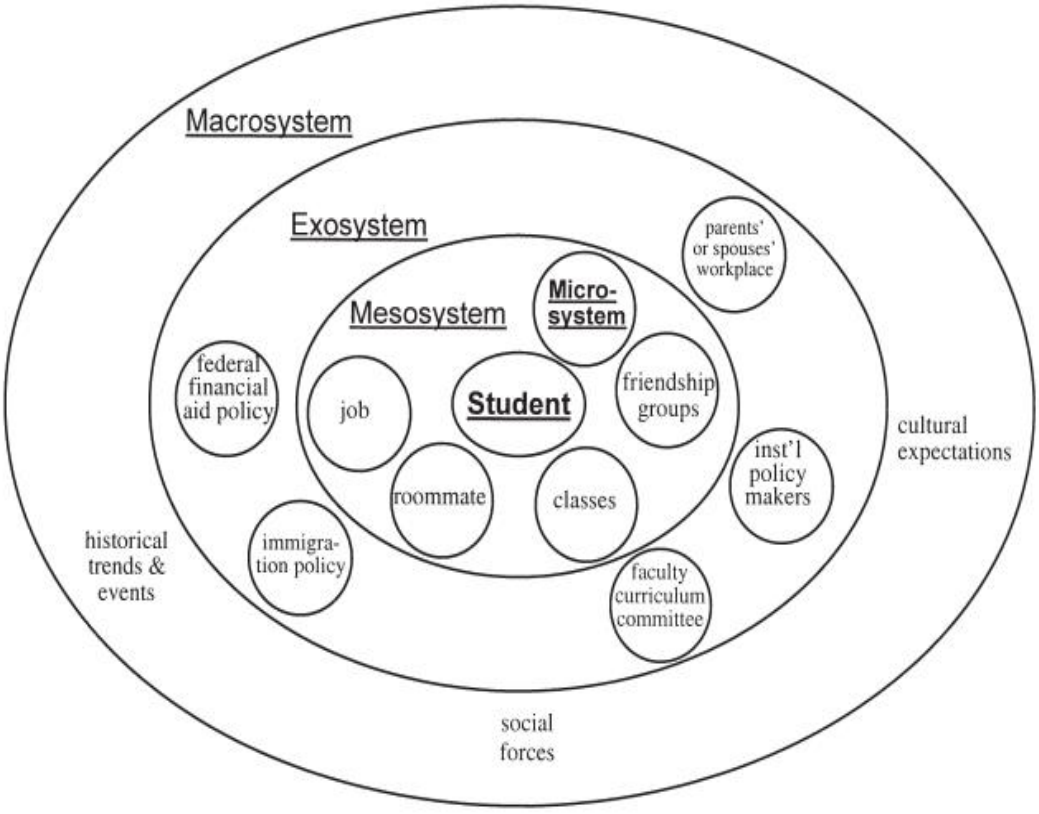


Figure 1: Bronfenbrenner's Ecology Model applied to a Postsecondary Environment. Reprinted from "Reconceptualizing Research on College Student Peer Culture", by K. A. Renn & K. D. Arnold, 2003, The Journal of Higher Education, 74(3), 268. Copyright 2003 by The Ohio State University Press. Reprinted with permission.

College impact models. College impact models of student change, which include Astin's Inputs, Environments, and Outcomes (I-E-O) (1991), Tinto's Theory of Student Departure (1993), and Pascarella's General Causal Model of Student Development (1985) fall within the person-environment theory family (Long, 2012). The three student change models are "less specific than theories of individual development in their explication of the particular changes students undergo, are less detailed in their overall exposition, and have a less explicit base in other theories" (Pascarella & Terenzini, 1991, p. 50). The impact models are not particularly focused on the internal processes of change within the individual student but on the external

environment (Terenzini, 1987; Pascarella & Terezini, 1991, p. 50). The "eclectic impact" models identify variables that affect student change in terms of organizational context. Terenzini (1987) described the variables as being:

> … student-related (e.g., academic aptitude and previous achievement levels, socio-economic status, race/ethnicity), some are structural and organizational (e.g., size, type of control, selectivity), and still others are environmental (e.g., the academic, cultural, and/or political climate created by faculty and students) (p. 5)

Pascarella's General Causal Model of Student Development (1985) is a model that "includes more explicit consideration of both an institutions structural characteristics and its general environment but that is also amenable to multi-institution studies of collegiate impact" (Pascarella & Terenzini, 1991, p. 51). Pascarella's model identifies five major variables that directly or indirectly affect student growth or change, and ultimately, student success. The first two sets of variables include student background and precollege traits and structural/ organizational characteristics of institutions. The first two sets influence the type of institutional environment in which the student is involved. The fourth variable, the interactions students have with faculty and peers on their campuses, is influenced by the first three variables. The fifth and final variable, quality of student effort is, thus, affected the other four variables (Pascarella & Terenzini, 1991).

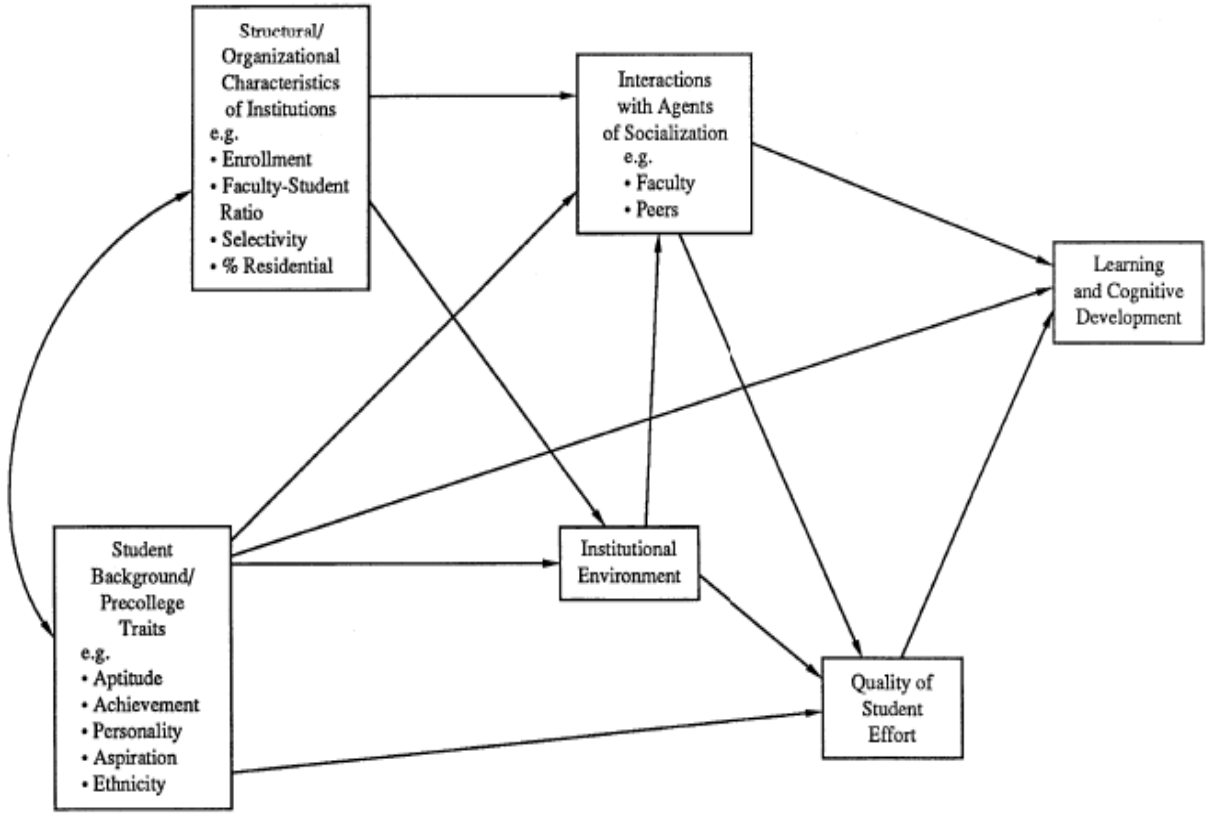


Figure 2: Pascarella's General Causal Model of Student Development for assessing the effects of college environments on student retention and success. Reprinted from "How College Affects Students" (p. 54), by E.T. Pascarella and P. T. Terenzini, 1991, San Francisco, California: Jossey-Bass. Copyright 1991 by Jossey-Bass Inc. Reprinted with permission.

Fleming, Howard, Perkins and Pesta (2013) emphasized the use of Pascarella's General Causal Model of Student Development for its assertion that an institution's formal characteristics and environment strongly influence a student's development. Namely, college environment, which moves beyond structural elements and delves more deeply into the "feeling" of a campus, is a critical driver behind the development of "peer-to-peer relationships and student-to-faculty interactions" (Fleming et al, 2013, para. 5 & 9).

The next section highlights the social and environmental influences on student development that exist within a college environment. The discussion moves beyond an overall

understanding of student development by focusing more specifically on SWDs in postsecondary institutions.

Social and Environmental Influences

A 2017 study by Fleming, Oertle, Plotner and Hakun highlighted the disparity of bodies of research on social and environmental factors that affect postsecondary student success. Whereas a significant body of research exists on postsecondary retention, there is little application of how social and environmental factors affect SWDs. Rather, more research emphasis surrounds "accommodations, access, and support services" (Fleming et al., 2017). Social and environmental factors include social integration, a sense of belonging, self-advocacy, inaccessible environments, and attitudinal barriers (Fleming et al., 2013; Fleming et al., 2017; Leake and Stodden, 2016; Mamiseishvili & Koch, 2011).

Institutional integration. Institutional integration, as the name suggests, refers to a student's ability to integrate into their educational environment (Aquino, Alhaddab, & Kim, 2017). Depicted by Tinto (1975), Astin (1975), and Pascarella and Tetrazzini (1980), institutional integration can be viewed in two ways - social integration and academic integration (Aquino, Alhaddab, & Kim, 2017). Social integration deals primarily with a student's involvement on campus, their interactions with others including faculty and peers, and their network. Academic integration refers to a student's "ability to perform academically", their "ability to endure educational demands", and their "ability to achieve academic goals" (Aquino, Alhaddab, & Kim, 2017, p. 47). Academic integration may begin in the classroom where relationships are often formed and extend to social relationships that have culminated from the classroom interactions (Mamiseishvili & Koch, 2012).

Peer-to-peer interactions play a pivotal role in a student's college environment is considered one of the most "challenging aspects of integrating oneself into the college landscape" (Fleming et al., 2013, para. 13). Significant predictors of success and retention for SWDs include "on-campus living, full-time enrollment, degree expectations, first-year GPA, and net price of attendance" (Mamiseishvili & Koch, 2011). Additionally, students who devote considerable time and effort studying, staying involved in campus activities and student organizations, and interacting with faculty, peers, and other campus personnel are likely to be more successful at integrating into the campus environment (Hadley, 2011, p. 79). Students who are less involved in campus life, who interact less with faculty and peers, and who attend postsecondary institutions "whose culture tolerate mediocre academic performance" will not be as likely to succeed (Long, 2012, p. 54). Non-traditional student indicators more common among SWDs, such as delaying entry into postsecondary education for a year or more after high school completion and the maintaining of part-time or mixed enrollment in the first year of college, put SWDs at a greater risk of leaving postsecondary studies before the completion of a certification, credential or degree (Mamiseishvili & Koch, 2012). Social integration and involvement is integral for at-risk students:

> if successful integration and involvement does not happen, there will be a greater chance for at-risk students to feel isolated and withdraw. This is certainly applicable to SWDs, whose disabilities may require additional time to do daily collegiate tasks (e.g., homework, getting around campus) or their ability to interact with others, academically and socially (Hadley, 2011, p. 79).

Emerging trends that have potential for increasing awareness about institutional integration and campus climate issues related to diversity and disability in higher education

literature have been summarized by Leake and Stodden (2014) as (a) reorienting disability support services towards the social model, (b) enhancing collaboration among student services, (c) including disability in diversity initiatives, (d) extending universal design to the co-curriculum, (e) promoting change through student activism, and (f) assessing progress in creating welcoming campus climates (pp.404-405).

Sense of belonging. A sense of belonging is critical for the retention of postsecondary students (O'Keefee, 2013). Students who are enveloped into the college environment and who form social networks tend to have more success in their educational endeavors whereas students who do not feel a sense of belonging within the first eight weeks of a semester are at a much greater risk of dropping out of postsecondary education (Raley, 2007; Leake & Stodden, 2014; Aquino, Alhaddab, & Kim, 2017; Fleming et al., 2017). Strayhorn (2012) suggested that a "sense of belonging may be particularly significant for students who are marginalized in college contexts" (p. 17).

A disconnect with faculty, academic staff, and peers is a key factor that contributes to the withdrawal from college (Fleming et al., 2017). The quality of interactions that a student has with his or her instructors both in and out of the classroom largely influences a student's success (Cook, Rumrill, & Tankersley, 2009; Mamiseishvili & Koch, 2012). Findings from a study by Mamiseishvili & Koch (2012) revealed that a majority of SWDs at a two year institution had not met informally with faculty members and had not been a member of a study group.

Self-advocacy. Self-advocacy is described as "the ability to communicate one's needs and wants and to make decision about the supports needed to achieve them" (Daly-Cano et al., 2015, p. 214). It is also defined as "speaking up for yourself and your needs and being able to explain disability clearly and concisely" (Marcus Johnson, 2015, p. 4). Research suggests that

well-developed, self-advocacy skills are directly related to the successful transition and adaptation to college, academic success, and college persistence (Daly-Cano et al. 2015; Highlen, 2017). Despite the importance of self-advocacy, however, SWDs are less likely to advocate for their needs (Hong, 2015, p. 210).

The transition from high school special education programs into postsecondary institutions is a significant barrier to self-advocacy for SWDs (Daly-Cano et al., 2015; Trojano, Liefeld, & Trachtenberg, 2010). Under the IDEA, the school is responsible for identifying SWDs, assessing student's disability-related impact, and creating an individualized education plan to ensure access to educational success. In addition, the IDEA requires close involvement from parents in the development and execution of educational plans. Daly-Cano, et al (2015) report that 87% of students they sampled received accommodations and services in high school; however, once in college, that number dropped to 19%. When SWDs transition from secondary to postsecondary education, the responsibility for seeking accommodations and services shifts from parents and teachers to students. It then becomes the student's responsibility to seek out and advocate for disability-related assistance.

Daly-Cano et al. (2015) found that many college students who use self-advocacy in college learned those skills from parents and other family members through supportive encouragement and direct instruction. The importance of parental and family support in the development of self-advocacy skills is also supported by research conducted by Kimball et al. (2016). The study also found that many students learned self-advocacy skills from their parents, both by observing their parents advocate on their behalf and from direct instruction. Numerous students reported that they learned of their identities as people with disabilities through watching their parents fight for the services and accommodations they were legally entitled to. Through

these observations and interactions, the participants "learned that advocacy skills were essential life skills" (Kimball et al., 2016, p. 251).

Inaccessible environments. While physical accessibility has improved since the passing of the Americans with Disabilities Act (ADA) in 1990, physical environments are still inaccessible. The United States Access Board (n.d.), which developed and maintains technical requirements for the built environment, puts forth only minimum accessibility guidelines. As a result, a university's physical environments may meet federal guidelines for accessibility; however, those environments still may not be fully accessible. The United States Access Board has also created accessibility guidelines for historical buildings which state, "if following the usual standards would threaten or destroy the historic significance of a feature of the building, alternative standards may be used." This may mean that a wheelchair ramp can be steeper than required for non-historical sites or that access need only be permitted on the ground floor. Because so many university campuses contain historically significant buildings, these alternate standards can create built environments that are inaccessible to students, and others, with disabilities.

Physical barriers on college campuses includes more than just the built environment. Inaccessible web-based and online environments also create significant barriers to student success on college campuses. Students who are blind, d/Deaf or hard of hearing, have upper and lower body mobility issues or have other disabilities that impact access to and use of information and technology are significantly impacted by increasing usage of technology and online environments on college campuses. Approximately seven million students have taken online class in the past few years (Linder, et al. 2015). Online classes are helpful to SWDs because they allow flexibility but are often not available because students "cannot gain access to

instructional materials and technology-enhanced learning" (p. 21) because online materials are often not accessible.

In 2010, the US Department of Education's Office for Civil Rights (OCR) reinforced the requirement for full access when it released a *Dear Colleague Letter* that stated,

> Requiring use of an emerging technology in a classroom environment when the technology is inaccessible to an entire population of individuals with disabilities…is discrimination…unless those individuals are provided accommodations or modifications that permit them to receive all the educational benefits provided by the technology in an equally effective and equally integrated manner (para. 1).

Since that time, multiple universities, including Penn State, Florida State, University of Montana, University of California Berkeley, and Louisiana Tech have been found by OCR to be out of compliance with federal laws regarding accessibility for those with disabilities (California State University, n.d.). Those cases have detailed the requirement for accessibility of all electronic and information technology including, but not limited to, online courses, learning management systems, website services, course materials, videos, audio files, classroom technology (clickers), and more.

Attitudinal barriers. The World Health Organization (WHO) defines barriers as those things within the environment that "through their absence or presence" creates disabilities by limiting function (Sahu & Sahu, 2015). The seven most common barriers are: attitudinal, communication, physical, policy, programmatic, social, and transportation (Sahu & Sahu, 2015). Of these common barriers, research suggests that the most limiting barriers for SWDs are social and environmental, including attitudinal barriers and stigma related to disability status (Fleming, Oertle, Plotner, & Hakun, 2017). Attitudinal barriers underlie all other barriers and often times

leads to denying students their basic human rights (Fleming et al., 2017). A campus that is otherwise accessible and that has a disability services office that is well established and available, may be unaware of environmental factors that produce a non-welcoming environment for members of underrepresented groups. The sense of belonging and integration are undermined by unwelcoming campus climates towards SWDs. Research suggests that "campus climate mediates the relationship between belonging and student satisfaction" (Fleming et al., 2017, p. 224).

The attitudes of faculty and staff contribute to the challenging campus environment that SWDs often face (Pingry O'Neill, Markward, & French, 2012). Research shows that faculty attitudes towards providing accommodations to students, whether positive or negative, is the most influential factor on the successful implementation of student accommodations (Sniatecki, Perry, & Snell, 2015). This is particularly true for students with invisible disabilities. Faculty often question the legitimacy of the disability or the need for accommodations as students do not appear disabled (Sniatecki et al., 2015; Zhang, Landmark, Reber, Hsu, Kwok, & Benz, 2010). Faculty often works from the perspective that accommodations infringe upon their academic freedoms, compromise the rigor of their course/assignments, and provide an advantage to SWDs (Zhang et al., 2010). A focus on students' perceptions of institutional environments has been critical in research focused on students of color and persistence, however, Fleming et al. (2017) suggests this approach could also apply to SWDs.

Students with Autism Spectrum Disorder

The Center for Disease Control's Autism and Developmental Disabilities Monitoring (ADDM) Network (2016) estimated that one in every 68 children in the United States is identified as an individual with an autism spectrum disorder (ASD). The National Center for

Education Statistics (NCES) estimated that approximately 538,000 students between the ages of 3-21 are diagnosed with autism each year (U.S. Department of Education, 2016). Boys are more likely than girls to be affected and the disability affects all ethnicities, races and socio-economic groups (CDC, 2016). ASD is a neurodevelopmental disorder that causes impairments in communication, social relatedness, and behavior (CDC, 2016; Freedman, 2010, p. 17).

Although non-disclosure of a disability limits the accuracy of data related to the number of ASD students participating in or entering higher education (Kelley & Joseph, 2012, p. 4), a George Washington training module prepared by Delrieu (2015) suggested the ASD student population in higher education comprises 0.7% to 1.9% of the college population. Among students leaving high school, only 34.7% were found to have attempted to participate in postsecondary education within six years of graduation (Shattuck et al., 2012) and of those students with ASD that entered higher education, there was an 80% incompletion rate (Delrieu, 2015; Finnegan & Finnegan, 2016). Based on a study of data gathered from the National Longitudinal Transition Study-2, which was conducted in 2009 of young adults between the ages of 21-25, of those students with ASD who attended college, "86% attended a 2-year college at some point in their postsecondary education experiences. They may also have attended a 4-year college. But, for over half (56%), the 2-year college was their sole college experience" (Roux, Rast, Rava, & Shattuck, 2015, p. 1). In comparison to "other disability categories", students with ASD fare worse on college graduation outcomes, rates of employment, and are "more likely to develop a psychopathological disorders" (Van Hees, Moyson, & Roeyers, 2014, p. 1674; Friedman, 2013).

A majority of college students with ASD are affected by milder forms of autism, which were more recently known as Pervasive Developmental Disorder – Not Otherwise Specified

(PDD-NOS) and Asperger Syndrome (AS) (Cullen, 2014). In May 2013, the American Psychiatric Association (APA) published the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, more commonly known as the DSM-5 (Attwood, 2015). Under the guidelines of the DSM-5, Asperger's Syndrome is now classified as autism spectrum disorder – level 1 (APA, 2014; Autism Speaks, 2015). The new classification is important for educators because much of the previous research about students in higher education with ASD is likely to be found when using Asperger Syndrome as a search term. Therefore, when building a repertoire of understanding, educators would benefit from a review of the DSM-5 review and the past research geared towards the study of Asperger's Syndrome (Attwood, 2015, p. 9).

While students with ASD "demonstrate significant and limiting interpersonal deficits, they may possess cognitive abilities similar to neuro-typical or gifted individuals" (VanBergeijk, Klin, & Volkmar, 2008, p. 1359). With the increasing ASD student population, the legal implications that govern accommodations and modification within public post-secondary institutions, and the importance of educational attainments for one's sense of purpose, accomplishment, and future employment, it is important for institutions to understand how students perceive their experiences in higher education (Yokotani, 2011, p. 227). Understanding how to work more effectively with invisible diversity is imperative for ensuring that students with ASD achieve success in their postsecondary pursuits (Kelley & Joseph, 2012; MacLeod, Lewis, & Robertson, 2013, p. 41; Taylor, 2005).

Few studies that highlight the experiences of students with ASD in higher education exist (Gelbar, Smith, & Reichow, 2014; Wiorkowoski, 2015; Cox, Thompson, Anderson, Mintz, Locks, Morgan, Edelstein, & Wolz, 2017). A systematic review of research articles that described lived experiences and supports of students with ASD in postsecondary education

revealed a lack of focus on first-hand student accounts, a fragmented description of college programs, and it noted the use of primarily only "theoretical suggestions for effective programs" (Gelbar et al., 2014). As noted by Cai and Richdale (2015), the existing literature about support needs and services for students with ASD comes primarily from the academic professionals who work with the sub-population of students and the professionals who have expert knowledge of ASD.

The existing literature highlights a number of difficulties that confront students with ASD, particularly in postsecondary settings. Challenges that have been identified include (a) struggling with new situations and unexpected changes, e.g. transitions to college; (b) draining yet necessary social contacts; (c) processing information and time management; (e) uncertainties about self-disclosure; (f) mental health issues (g) comorbid disabilities, e.g. Attention Deficit Disorder (ADHD); (h) sensory sensitivities and aversion to noisy environments or room lighting (Van Hees, Moyson, & Roeyers, 2017, p. 1676; Longtin, 2014, p. 65). In a description of the issues faced in a classroom by students with ASD, DeOrnellas (2015) suggests that challenges exists in "understand[ing] others' points of view; hav[ing] problems with taking turns in conversations (language pragmatics), speak[ing] in a loud or flat voice; and hav[ing] problems understanding sarcasm, abstract language, and some forms of humor" (para. 2). An overall difficulty managing emotions and details of daily life such as multi-tasking and organization tends to be seen more often in students with ASD (Dubin, 2009, p. 26). Students also face academic challenges due to "poor ability to understand or apply concepts", "distractibility", "weak organizational skills", and "hypersensitivity to particular sounds, smells, and lighting" (McKeon, Alpern & Zater, 2013, p. 354).

The term *Theory of Mind* (ToM) is often used to when referring to the problematic characteristics of associated with students with ASD (Edelson, 2015; Freedman, 2010, p. 37; Attwood, 2015, p. 124). Theory of Mind is a psychological term that describes one's ability to recognize emotions and intentions of other individuals and to make assumptions about their feelings based on the recognition of specific cues. Individuals with ASD often have impaired Theory of Mind abilities, which Attwood (2015) suggests leads to issues such as "difficulty reading the social emotional/emotional messages in someone's eyes, making a literal interpretation of what someone says, being considered disrespectful and rude, being 'remarkably honest' to the detriment of the social group or another person's feelings," displaying a 'sense of paranoia' as it regards the distinction between understanding a "deliberate or accidental" act of another student, misunderstanding other's ability and interests to help with "problem solving" activities, difficulty "managing conflict," identifying mistakes in others and finding the appropriate way to discuss faux pas in an indirect manner, being slower to process social cues and therefore require more prompts and engagement, and difficulty with exhaustion that is caused by the greater level of mental effort required for the processing of social information that tends to come more naturally to neuro-typical peers (pp. 126-135).

Students with ASD are more likely to be affected by other co-morbid psychiatric conditions such as anxiety and depression (Freedman, 2010). Such additional struggles become more prominent through the adolescent years as students become more aware of their differences among their peers. Dubin (2009) posited that anxiety is often "symptomatic of and aggravated by" the difference one feels between his or her neuro typical peers (p. 13). According to Macleod, Lewis and Robertson (2014), inclusion is another major obstacle faced by students with ASD. Additionally, students are "often naïve" and fall victim to students who recognize the

deficits in social skills and savviness of students with autism. (Wolf, Thierfeld Brown, & Bork, 2009, p. 1)

As evident from the challenges inherent in autism spectrum disorders, support needs that include both educational and social supports are imperative for meeting the needs of this growing sub-population of students (Cai & Richdale, 2015). Efforts to review challenges faced by ASD students in Mississippi have been futile. Equally limited in research publications is the understanding of the true needs of students with ASD in postsecondary institutions in the state. To move the proverbial needle beyond the perception that accommodations are the only necessary objective for supporting students with ASD, more exploration of the specific challenges, experiences, and needs of students with ASD in Mississippi is critical.

Students who are Deaf or Hard of Hearing

Deafness is simply defined as the inability to hear. Levels of hearing loss include; slight, mild, moderate, severe, and profound loss (Leigh, Andrews, & Harris, 2017). Hearing loss can be genetic, whether inherited or through a gene mutation. These types of loss account for approximately 50% of deafness, while the other half are acquired loss due to external factors such as disease, fetal alcohol syndrome, and age (Leigh et al., 2017). People with a degree of hearing loss tend to identify as either deaf, hard of hearing, or Deaf. Little "d" deaf people have a severe to profound loss, rely on assistive auditory devices, prefer to use spoken language and socialize more with hearing people (Leigh et al., 2017). Those who identify as hard of hearing have a mild to moderate degree of loss and may or may not affiliate themselves with the Deaf community (NAD, n.d.). Capital "D" deaf people consider themselves part of a cultural minority and identify as members of the Deaf community (NAD, n.d.). They use American Sign

Language and share beliefs, values, and common experiences with other members of the Deaf community (Padden & Humphries, 1988).

The two most common constructions of deafness are those of disability and linguistic minority. Often the hearing society views deafness as a disability, yet, Deaf people view themselves as being disadvantaged by language barriers rather than a disability. From this perspective deafness is seen as socially constructed (Murray, Klinger, & McKinnon, 2007). Other variables that help define the student who is DHH are; age of onset of deafness, hearing status of parents, language use in the house, educational background, ethnicity, and additional disabilities (Convertino, Marschark, Sapere, Sarchet, & Zupan, 2009). The amount of heterogeneity, or additional variables within the DHH population, make attempts at predicting academic success more difficult than predicting the academic success of their hearing peers (Convertino et al., 2009). Making predictions more difficult is the fact that the DHH population is considered a "low-incidence" population. For instance, students who are DHH account for only one percent of the nation's high school population (Sarchet et al., 2015). Consequently, they are also a low-incidence population on today's college campus.

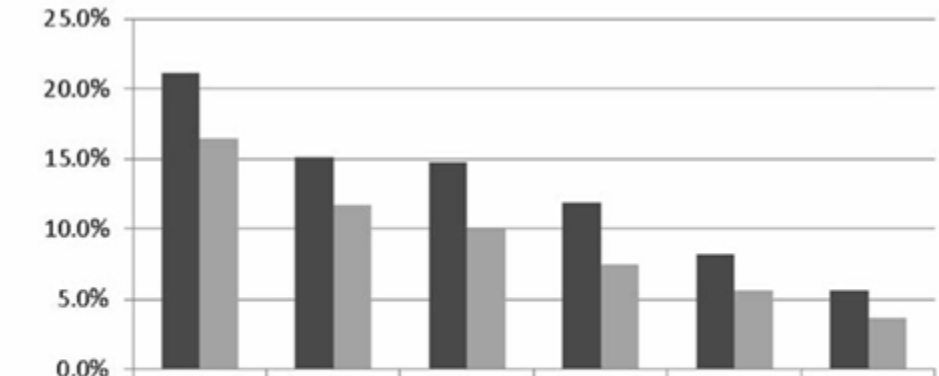
The World Health Organization (2013) estimates that there are approximately 360 million people worldwide with a disabling hearing loss. The National Institute of Deafness and Other Communication Disorders (NIDCD, 2010) reports that nearly 32 million U.S. adults report having some level of hearing loss and that roughly two to three of every 1000 children in the United States are born d/Deaf or hard of hearing. The U.S. Census Bureau in its 2008-2010 American Community Survey estimates 3.5% of the U.S. population or approximately 11 million individuals report significant difficulty hearing (Walter & Dirmyer, 2013).

Census information from the (2010) American Community Survey, compared to Schein and Delk's (1974) analysis of 1972 census data, indicates that the percentage of students who are DHH attending and graduating college has increased fourfold over the last 38 years (Walters & Dirmyer, 2013) from 6.4% in 1972 to 23.3% in 2010. Current research estimates that approximately 30,000 d/Deaf students and 700,000 hard of hearing students are enrolled in a postsecondary program (Leigh et al., 2017). The majority, or approximately 46% enter community colleges, 32% enroll in a vocational/technical school, while 30% enroll in a four-year college (Newman, Wagner, Cameto, Knokey, & Shaver, 2010). Of those that do enroll, researchers estimate that 85% leave their postsecondary program without earning a certificate or degree (Marschark et al., 2016; Walter & Dirmyer, 2013; Wagner, Newman, Cameto, Garza, & Levine, 2005). Research also shows that those who attend college but withdraw before completion fare no better than those who never attended at all (Schley et al., 2011; Sarchet et al., 2015).

The effects of an education on the economic status of individuals who are DHH parallel that of the general population. It is widely established in the research that students who are DHH with a college degree are more likely to find employment, reduce the gap in earnings between themselves and their hearing counterparts, and live lives independent from government support (Applemen, Callahan, Mayer, Luetke, & Stryker, 2012; Sarchet et al., 2015; Walter and Dirmyer, 2013). While it is also widely held that adults who are DHH are consistently underemployed compared to their hearing counterparts (Schley et al., 2011), however, those with a college degree are employed at a higher rate than adults who are DHH without a degree as seen in Table 1 developed by Walter and Dirmyer (2013) using data from the 2010 American Community Survey.

Table 1

2010 Unemployment Rates of U.S. Workers, by Hearing Status and Educational Attainment



	No HS Diploma	HS Diploma/GED	Some College	Associate	Bachelor	Graduate
Deaf/HH	21.2%	15.1%	14.8%	11.9%	8.1%	5.6%
Hearing	16.5%	11.7%	10.0%	7.5%	5.7%	3.7%

For those without a degree, participation in the labor market has declined over the years. In the 1970s approximately 80% of DHH adults were employed, yet, as of 2010 that number had declined to approximately 58%, increasing the number of DHH individuals dependent on federal subsidies (Walter & Dirmyer, 2013). It is well established in research that even though dependence on social security causes its recipients to live in impoverished conditions the disincentive to become independence of it can be an enormous barrier to gainful employment (Jenson & Silverstein, 2006; Murray, Klinger, & Walter, 1988). Upon turning 18 years old, the Social Security Administration (SSA) considers a d/Deaf or hard of hearing youth a "family of one" and can receive benefits where they may have not been eligible prior because of their family's income (Bowe, 2003). This information can impact the student's decision to attend college or not.

Much of the research done on DHH postsecondary students has been retrospective in nature. Data collected in national longitudinal studies have been explored and self-inventory

surveys have been employed to determine the characteristics of DHH college graduates (Schley et al., 2011). However, only a handful of phenomenological studies have been conducted with current college students to explore their perceptions of the college experience and none have been done with Mississippi community college DHH students.

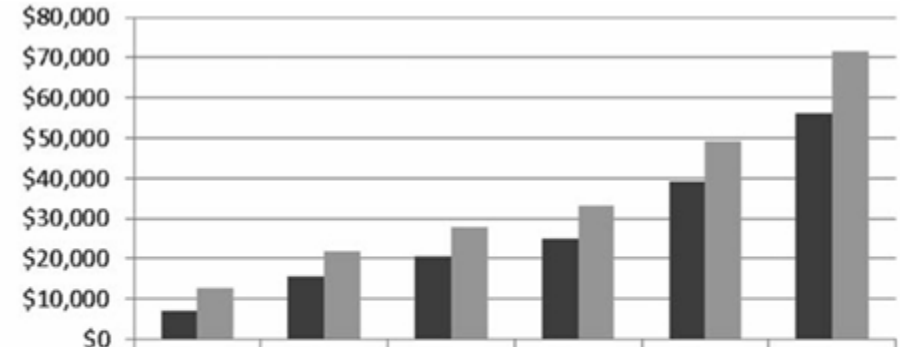
According to the 2014/15 U.S. Census Bureau, there were approximately 48,800 persons with a hearing impairment between the ages of 21-64 living in the state of Mississippi. Of this population, 19.1% receive social security benefits and 29.8% live below the poverty line. Both of these percentages are higher than every other state in the nation. A look at the data on the educational attainment of this same population sheds some light on why.

Compared to the national average, DHH adults living in Mississippi trailed DHH adults in all other states in advanced (Baccalaureate or higher) degree attainment. Only 10% of the Mississippi DHH population hold a BA degree or higher, which is well below the national average, as well as, below all other states in the nation. However, 33.5% have some college or an associate's degree, which is higher than the national average. Again, data analyzed from the 2010 American Community Survey indicates that for both DHH and hearing employees, the higher the degree attainment the higher the income (Table 2) (Walter & Dirmyer, 2013).

Deaf students are not hearing students who cannot hear, rather, they differ on many more factors than hearing people, as stated above. These DHH diverse learners experience more unique academic challenges than most realize, which includes a lack of full access to language, incidental learning, and social interaction (Marschark, Lampropoulou, & Skordilis, 2016).

Table 2

Earnings of U.S. Workers Ages 26–64 Years, by Hearing Status and Educational Attainment



	No HS Diploma	HS Diploma/ GED	Some College	Associate	Bachelor	Graduate
Deaf/HH	$7,178	$15,660	$20,482	$25,135	$39,105	$56,082
Hearing	$12,674	$21,838	$27,974	$33,227	$49,334	$71,575

Chapter Summary

Chapter II provided an extensive review of the literature related to SWDs in postsecondary institutions. The literature review began by expounding on disability theoretical frameworks, where the social model was compared to the medical model. The discussion then moved to a review of social justice and equity by exploring the public and private good debate as it relates to SWDs in higher education. The third major section of the chapter reviewed person-environment theories and their application to understanding student change. The literature review expounded on the ecology model of human development by Bronfenbrenner and Pascarella's general causal model for student development. The chapter also further expanded upon the social and environmental influences that affect retention and completion by SWDs. Finally, the literature explored each of the three sub-populations in more detail.

CHAPTER III

METHODOLOGY

Authors: Krystal Berry & Ronda Bryan

The overall purpose of the two qualitative studies was to understand the lived experiences of two specific minoritized, sub-populations of students in postsecondary institutions in Mississippi: those with an autism spectrum disorder and those who are DHH. Phenomenological inquiry was chosen as the best method for capturing the experiences of each of the sub-populations. Semi-structured, in-depth interviews were employed for answering the research questions in chapter I.

Research Framework

Qualitative research has five features that make it particularly suitable for exploring student experiences. Bogdan and Biklen (2007) identify the five features as: naturalistic, descriptive, concerned with process, inductive, and meaning (pp. 4-8). It is naturalistic in that it comes from the "ecology approaches in biology", which will be more closely explored in the next section (Bogdan & Biklen, 2007, p. 4). The research is descriptive, by which data are collected in written form and particular situations are described using rich descriptions and quotations. Rather than a narrow focus on results or outcomes, qualitative research is concerned with the process. Data is analyzed in an inductive manner where theory emerges from data

collected over time. 'Meaning' is imperative for qualitative researchers. Understanding how people make sense of their lives and experiences is paramount in qualitative research (Bogdan & Biklen, 2007, p. 7). While all five features are elements of both studies' approach to understanding the minoritized sub-populations of students in Mississippi, making meaning of those voices received the strongest degree of attention.

The ontological philosophical assumption underpinned the qualitative studies. This philosophical assumption embraces the idea of multiple realities and perspectives (Creswell, 2013). Since the studies aimed to capture lived experiences, it was not expected that one narrow theme would emerge, rather a diverse and rich set of themes or values emerged. The ontological philosophical assumption is embedded in a social justice interpretative framework in which *disability inquiry* guides the research design to be: considerate in the manner data is collected and the way questions are asked; useful and relevant to the community; appropriate in communication method; and, reported in a manner that is "respectful of power relationships" (Creswell, 2013, p. 34).

Numerous qualitative models such as ethnography, grounded research theory, hermeneutics, phenomenology, and heuristics exist to guide human science research (Moustakas, 1994). We chose to utilize a phenomenological research design for its focus on identifying and interpreting the shared or common meaning of lived experiences (Creswell, 2013, p. 76; Bogdan & Biklen, 2007). As Moustakas noted, "the aim is to determine what an experience means for the persons who have had the experience and are able to provide a comprehensive description of it. From the individual descriptions general or universal meanings are derived" (1994, p. 13). The interpretive nature of phenomenology lends itself to subjectivity of the informants and the researchers. However, to provide a "particular rendering" of the "human condition" and the

reality of SWDs in Mississippi post-secondary institutions and to influence the development of policies and procedures related to the sub-populations of the two studies, phenomenology is a legitimate and useful approach (Bogden & Biklen, 2007, p. 27; Creswell, 2013).

Research Sites

The two studies took place on community college campuses in the state of Mississippi. With fifteen community colleges throughout the state, it was determined that a suitable number of research volunteers could be reached for achieving saturation. By interviewing students from across the state, it was believed the findings would be enriched by the varying perspectives from different populations of students throughout the different regions.

Prior to starting data collection, each researcher had to gain permission from the University of Mississippi's Institutional Review Board (IRB). (See Appendix A). Additionally, to gain permission to interview students on the community college campuses, approval from the Mississippi Association of Community and Junior Colleges (MACJC) Council on Institutional Research and Effectiveness (CIRE) was required. CIRE approval process was contingent upon prior IRB approval from the University of Mississippi. As part of the approval, CIRE stipulated that college names and geographical locations (i.e. northwest, northeast, central, etc.) could not be shared in the findings. (See Appendix B).

Participant Selection

The studies were approved by the University of Mississippi Institutional Review Board (Appendix A). The studies also followed the appropriate measures to be approved through the MACJC Council on Institutional Research and Effectiveness (Appendix B). The disability support services offices (DSS) were contacted at all fifteen community colleges in Mississippi. By contacting the DSS at each school, we were able to ensure that volunteer participants have

self-identified with an autism spectrum disorder, or hearing loss and have been approved for accommodations through each institution's review process. In the phenomenological approach chosen for the studies, criterion sampling helped to narrow the selection of participants to only those who have "experienced the same phenomenon" that each study is exploring and to those participants that were able to articulate his or her "lived experience" (Creswell, 2013, p. 150). Written consent-to-participate forms were collected prior to each interview (Appendix F).

Data Collection

Data was collected in the form of in-depth, individual interviews. Face-to-face interviews allowed participants to share freely and comfortably (Creswell, 2013). Interviews lasted from thirty to sixty minutes and followed a semi-structured protocol with questions designed to align with Pascarella's General Causal Model of Student Development. Interviews with students with ASD were audio recorded. Interviews with students who are DHH were video-recorded to enable translation from American Sign Language to English. The recordings allowed both researchers to ensure accuracy over the data collected. The researchers gathered additional observational data on an interview protocol form (Appendix C). Interviews were transcribed from the recordings. The written transcriptions allowed for easier coding. Transcriptions were shared with informants for transparency and accuracy. While there is no specific requirement of the number of interviews needed for a qualitative study exist, in phenomenological studies Polkinghorne (1989, as cited in Creswell, 2013) suggested conducting interviews with five to 25 people, which should lead to saturation of the collected data. Interview locations were arranged with each college or university. For privacy of participants, an enclosed office space or room was used for all interviews. Arrangements were made with

each college and the researchers were mindful of the potential intrusiveness their presence may cause in terms of room usage.

Interviews were recorded with a mobile application called Rev. Rev provides ample space for multiple recordings, storage, and transcription services. Each interview was recorded through a secondary device to ensure there was no loss of information. Data was stored on a file owned by each researcher. To ensure confidentiality of participants, pseudonyms were used and the location of the participant's school was not provided in the data collection or results.

Data Analysis

The data collected in the two studies have been examined through the person-environment fit models discussed in chapter two. A guide by Taylor-Powell and Renner (2003) was utilized for analyzing the data collected through the interviews. The guide recommended five steps: (1) become familiar with the data; (2) focus the analysis; (3) categorize the information; (4) identify patterns and connections within and between categories; and, (5) interpretation. As mentioned in chapter two, Pascarella's General Causal Model of Student Development was used as a guide for the interviews and for the development of the coding system. The primary approach of coding was to identify narrative themes that define the shared or common meaning of lived experiences.

By taking time to become familiar with the data collected (step 1), both researchers were able to critically reflect on the findings. Because time was spent reading through each transcription, we were able to agree that saturation of the data had been met. The quality of the information collected provided both researchers with the level of analysis we felt appropriate for our studies. To focus our analysis (step 2), both researchers kept the research questions at the forefront. By keeping in mind the goal of the study and the questions posed, the data was

analyzed to support the purpose of the evaluation. We started by analyzing each study participant's individual responses to the interview questions. This allowed us to focus on the individual participants first. To accomplish this step, each transcription was read line by line and notations were made. We then categorized our information (step 3). To bring meaning to the notes collected in step two, the researchers identified themes that began to emerge. A number of sub-categories emerged in the data. From the emergent categories, both researchers identified the relative importance of the themes by counting the number of times the theme came up in the data. Additionally, we carefully reviewed the relationships among themes and sub-themes. We did not make assumptions as to cause and effect. Rather, the themes were explicated for their ability to provide a narrative to the research questions. Finally, we brought the data together (step 5) by interpreting the findings, which can be seen in detail in Chapter V (Taylor-Powell & Renner, 2003).

Validity Issues

Creswell (2013) defines validity in qualitative research as "an attempt to assess the 'accuracy' of the findings, as best described by the researcher and the participants" (pp. 249-250). Quantitative and qualitative research handles threats to validity in different ways. Quantitative researchers try to plan for anticipated and unanticipated validity threats through "prior" design controls, such as the use of "control groups, statistical control of extraneous variables, randomized sampling and assignment, the framing of explicit hypotheses in advance of collecting the data, and the use of tests of statistical significance" (Maxwell, 2013, p. 123). On the other hand, validity threats in qualitative research often must be handled after the research has begun (Maxwell, 2013). It is important to identify anticipated threats and to develop ways to reduce or eliminate any potential threats to validity (Maxwell, 2013).

Eight validation strategies for qualitative research include prolonged engagement and persistent observation, triangulation, peer review or debriefing, negative case analysis, clarifying researcher bias, member checking, rich, thick description, and external audits. The strategies selected for the two studies are peer review or debriefing, clarifying researcher bias, and rich, thick description.

Peer review or debriefing. Peer review takes place when a peer debriefer provides a check on the research; this can take place in the form of challenging questions about the methods, meanings, and interpretations of a researcher's work. It has been likened to playing 'devil's advocate' (Creswell, 2013, p. 251). Both researchers have provided an external review of each other's approach to interviews, interpretation of data collected during interviews, discussion of findings, and overall approach to writing. Through our collective dedication to completing credible and applicable research, we were committed to honest communication with one another and to ensure we produce our best work.

Clarifying researcher bias. In this type of strategy the researcher typically discloses any 'past experiences, biases, prejudices, and orientations, that have likely shaped the interpretation and approach to the study' (Creswell, 2013, p. 251). Maxwell (2013) refers to researcher bias and subjectivity. Subjectivity cannot be eliminated from qualitative research because it is impossible to omit a researcher's "theories, beliefs, and perceptual lens" (Maxwell, 2013, p. 124). Therefore, in Chapter I each researcher disclosed her own subjectivity towards the corresponding study.

Rich, thick description. Creswell (2013) identified this validation strategy as one that "allows readers to make decisions regarding transferability because the writer describes in detail

the participants or setting under study" (p. 252). Both of the researchers provide quotes from participants as the remarks related to each of the themes that emerged during data analysis.

Chapter Summary

Chapter III discussed the phenomenological inquiry approach that both studies used for gaining a deeper understanding of the lived experiences among students of the two sub-populations in Mississippi. Data was collected through semi-structured interviews with student participants. Analysis of the interviews revealed major themes and sub-themes from which the student experiences could be understood. Validity concerns were addressed through peer review between the authors, member checking in collaboration with research participants, and through the use of rich descriptions within the findings chapter. In the following chapter, findings from the interviews are highlighted and the primary and sub-themes are discussed in great detail.

CHAPTER IV

RESULTS

Author: Krystal Berry

The problem of practice previously identified and explored in the literature review suggests that postsecondary institutions in Mississippi will continue to enroll students with invisible disabilities without a generalizable understanding of how the population experiences their educational environments (Lux, 2016). This chapter highlights the experiences of seven students with ASD who attend community colleges in Mississippi. An overview of this study's approach is shared. Additionally, findings from the seven interviews are highlighted in a narrative format. Finally, themes that were derived from the interviews are discussed.

The main purpose of this study was to gain a deeper understanding of how students with ASD experience the community college setting in Mississippi. Students with ASD more frequently attend community colleges than four-year institutions (Roux, Rast, Rava, & Shattuck, 2015), thus creating the potential for an influx of students with ASD in community college systems. The analysis of the combined lived experiences of research participants with ASD will help identify important themes that affect academic success at the community college level. Because research suggests that students with ASD are less likely to complete post-secondary education than their neuro-typical peers, it is important to look more closely at ways to prevent

student attrition. The primary goal of the study was to contribute to the literature that addresses lived experiences of students with ASD in higher education, specifically in the Mississippi community college system. The study also aimed to provide recommendations, which can be applied to the environmental and social structures in a community college environment and will subsequently support academic success for students with ASD. The study was guided by three research questions:

1. What are the experiences of students with ASD within the community college system in Mississippi?
2. How do the experiences affect the students' perceptions of a successful degree completion?
3. What students with ASD believe can be done within their college to support their educational endeavors?

Interview and Participant Descriptions

Semi-structured interviews were carried out over a timespan of four months. The researcher emailed a recruitment letter to all disability support services (DSS) administrators and student support personnel at each of the fifteen community colleges (Appendix D). A request was made that all students registered with ASD with the respective DSS office receive a copy of a student recruitment letter (Appendix E). At each of the colleges where interviews were conducted, an administrator helped to arrange the interview times and spaces. Before starting each interview, participants were given a Consent to Participate form to review. Together we read through the sections of the form and both oral and written consent were collected (Appendix F). After consent was obtained, the recording of each interview began. During interviews, notes were taken on a pre-determined script and audio recordings were later transcribed. All materials

were kept in a cabinet in a locked office. Efforts to remove all identifiers prior to storage was made.

Seven students were interviewed for this study. All participants were currently enrolled at one of the fifteen community colleges in the state of Mississippi. To protect the anonymity of the student participants, pseudonyms were used. Prior to each interview the student participants were encouraged to read through the protocol (Appendix C) and a discussion ensued about the rights of the participants. Table 3 shows a breakdown of participant information.

Table 3

Research Participant Information

Pseudonym	**Gender**	**Classification**	**Comorbid Diagnosis**	**Transfer Aspirations**
Simon	Male	Freshman		Uncertain
Ben	Male	Sophomore	Depression	Four-year university out of state
Joseph	Male	Freshman		Four-year university in state
MaryBeth	Female	Sophomore		Four-year university out of state
Nicholas	Male	Sophomore	ADHD	Four-year university out of state
Ella	Female	Freshman		Four-year university in state
Seth	Male	Sophomore	Anxiety	Uncertain

Summary of Interviews

Each of the seven interviews have been summarized and shared. Participant identifiers have been removed and students are only identified by a pseudonym. The pseudonyms were assigned after all transcriptions were completed and do not reflect the order in which participant interviews took place. Semi-structured interviews followed a script that was written using Pascarella's General Causal Model of Student Development as a means to understand the environments that affect students with ASD in community college.

Simon. Simon is a male community college freshman. His college selection and his acquisition of accommodations were primarily influenced by his parents. He spoke mostly about

his parents during the interview and shared how instrumental his parents were in his pursuit of other campus activities, one of which he is heavily involved and which surprised me. Simon is his school's mascot, which is a secret because he attends games in costume. Singing is his self-described hidden talent. I perceived Simon to be extremely excited when he shared more about his talents, and it seems he has a true passion for entertaining.

He lives on campus and lives away from his parents for the first time. He was pleased with his campus experience and said that his peers make him feel like he is part of the community. He lives in the dormitory where school athletes are housed due to his involvement as the school mascot. His membership in his social group provides him support and "respect." He seemed extremely positive about the amount of interaction he gets with his peers both in class and out of class. He enjoys his experience at his community college and feels comfortable with his faculty. Although he perceives his parents are nervous about his participation in the community college, they have encouraged him along the way.

The interview with Simon was the shortest (15 minutes 58 seconds) among the seven interviews. He was measured with his responses and did not divulge additional details beyond the direct response to the scripted questions. Of all seven research participants, he was the only student to hug me as he headed out of the room. While a personal gesture, it is not surprising to me because it aligns with the characteristics of ASD; whereas some individuals may avoid touch, others seek it and in ways that are not considered typical. I understood it a gesture of friendliness, warmth, and kindness.

Ben. Ben is a male community college sophomore with ASD. The interview lasted for 31 minutes. To begin the interview he immediately told me about his parents and their professions. Throughout his interview Ben emphasized strong parental influence, expectations,

and pressure. When asked to describe why he chose to attend a community college he identified the financial benefit versus attending a four-year institution and the relative ease of getting scholarships. Ben's parents attended community colleges as undergraduates and this too influenced his decision.

His first year of high school was rough because of his diagnosis of Asperger's (now classified as ASD under the American Psychiatric Association's fifth edition of the Diagnostic Statistical Manual (2013), but he learned to push through it. The beginning of college was a similar experience. It was "very confusing because there was this whole aspect of the FAFSA, there's registration, there's scholarships…just like going to high school, [and] it's this whole new environment that is just mind-boggling at first."

Ben's choice to major in theater culminated from his father's influence to choose it as a hobby in high school. Through his major he became involved in a theater group and continued his involvement with different roles during each semester of attendance. His primary social group consists of those of the same major, otherwise, Ben does not put a great deal of effort talking to people in general. As part of his campus involvement, he discovered a new talent - singing - and he has begun to work towards improving it. He became excited when talking about the newfound talent. His mother encouraged him to try it in high school but he pushed it aside. His connection to singing is strong and he is highly motivated to develop his talent. I remarked that I was surprised at his choice of major because it defied the stereotypical major that is often associated with individuals with ASD. For Ben, it seemed to be a creative outlet and a way of communicating with other like-minded individuals.

Ben lives on campus with a roommate and described college life as easier and less rushed than high school. His parents have expressed concern over his decision to live on campus and to

live with someone, but for him it is important to do his "own thing" and have a typical roommate experience. He has gotten different roommates "every time" and they tend to go in their own separate ways without feeling the need to socialize.

Ben's experiences in the classroom have been tough at times, particularly in his freshman year, which he compared it to his first year of high school. In community college he began making bad grades and developed a fear of not graduating, thus disappointing his parents. Self-doubt led to fear and frustration and he described having outbursts. He stated, "I used to have outbursts in class because I would make a low grade…and I would start freaking out. I'd beat myself up and everything." He would hit or hurt himself, get mad at himself, call himself lazy and otherwise berate himself. Ben's teachers took notice and called his behavior to his attention and offered support. He was encouraged to visit with the DSS on campus, which helped significantly. When his teachers began to talk with him about his behavior, he described being fearful about his parents finding out that he couldn't handle himself, especially because they were against him living on campus. He had concerns that he would have to move back home with his parents and would have to live with his parents for the rest of his life. It could be perceived that he was challenging himself to succeed, so he could prove to his parents that he could make it on his own. He revels in the freedom he has living on campus and being able to make his own decisions.

He has had mostly positive experiences with faculty and his reasons for not liking a particular faculty member was mostly related to the course topic, instructional approach, instructor's strictness, or even how an instructor speaks. He has experienced accepting and accommodating faculty and has received academic accommodations such as extended time on exams and less distracting environment at the DSS office for taking exams. He has been "cool

with" two of his teachers and would stay around after classes to speak with one teacher about history, because he loves the topic and he would speak with another teacher about video games since he discovered they share that interest.

Ben puts in a great amount of effort to do well in classes, yet he struggles with test anxiety. He typically visits his DSS to take his exams in a small, quiet room. Regarding test taking in the classroom, he stated:

> Use to, when I took a test, and I see people finish before me, I kind of freak out because, oh my gosh, oh my gosh, they're obviously smarter than I am. And then, sometimes I'll see everyone else in the class is finished and I'm still working on the test. Sometimes I'll get this paranoia that, oh my gosh, everyone's waiting on me. Class is about to finish. Class is about to be up. The class would almost be over, time would almost be out. I'd just be freaking out.

Accommodations have helped and he feels calmer and less frustrated. He has a depression diagnosis and has experiences with anxiety and paranoia, although he does not have a formal diagnosis. His counsellors have also been supportive and have "been a big help with it."

When asked what advice he might share to others with ASD in community college, he stated that time management, seeking help when there are questions, and seeking services are paramount. He could not recall learning about DSS during his freshman orientation and recounted feeling overwhelmed until he learned to ask questions. Ben believes it is important to make friends because they have helped him a lot because his freshman year in college.

Joseph. Joseph is a male community college freshman with ASD. The interview with Joseph lasted 28 minutes and 13 seconds. His high school experience was mostly negative and he received few accommodations. Prior to beginning community college, he did little to prepare

and faced a great deal of uncertainty about his selection. His parents played a key role in his decision to select a community college rather than a four-year institution. His resistance to attend community college was due to a negative image he had of community colleges. However, financial considerations combined with poor health of one parent persuaded him to choose to attend his current community college. Additionally, one of his high school friends chose to attend the same community college. Having familiar people at the school encouraged him to apply. Joseph commutes to school but has intentions of moving to campus in the following school year.

Joseph's community college experience has included relaxed and informal classrooms and less structure with more options. His advisors have been helpful and he appreciates the individual approach he has received. He has not sought much support from DSS, although he does feel the office has been helpful. He has had positive experiences with faculty and feels it has been easy to receive necessary accommodations and guidance to support his academic performance. The low student to teacher ratio, much like his high school, has benefitted him. The math lab has been extremely helpful because "College Algebra is a nightmare." Joseph is not outgoing and is primarily friends with those in his core social group, which consists of students in the same major. He is a theater major, which surprised me because it is not the major most people would assume an individual with ASD would choose due to the social and communication issues associated with the disability.

He suffers from anxiety and stress related to school issues and often feels strong levels of anxiety about minute details. He is nervous about transferring to a four-year institution in the future and feels he made the right choice to attend community college, although he was hesitant at first.

Near the end of the interview I asked him if he used sign language. Throughout the discussion, I noticed that he expressed himself with his hands in a manner that appeared to be related to American Sign Language (ASL). Given my own familiarity with the use of sign language for non-verbal children with autism and those who experience late language development, I assumed he may have learned during his formative years. He does not use it for his own communication. Rather, he still uses some ASL in speech that he learned for communicating with his younger sibling who has an ASD diagnosis and who was non-verbal during childhood.

MaryBeth. MaryBeth is a female sophomore community college student who received her autism diagnosis when she was a junior in high school. The interview with MaryBeth lasted 22 minutes and 23 seconds. Her parents are strong proponents of the community college system and encouraged her to choose the specific school and her college major. She has plans to transfer to a four-year institution upon graduation and she has specific goals for her future profession, which were influenced by one of her parents. Her parents were the key factor for registering with her school's DSS and for requesting specific accommodations. MaryBeth received greater transition support from her parents than her high school counselors.

Her experiences with faculty and the classroom have been mostly positive. She has a personal relationship with her teachers and enjoys the small classes. Her faculty have been understanding and accommodating and only one negative experience with a past faculty member remains in her memory. The negative experience stemmed from an instructor's misunderstanding of a behavior she displayed in class. The incident occurred when MaryBeth misunderstood the class material and was unable to express her concerns effectively with her instructor, thus leading to a behavior that her instructor did not accurately recognize. However,

the issue was resolved once the student sought support from DSS, whose director then consulted with the teacher and was able to disclose the student's disability. Her DSS Director has been "hugely helpful" in creating a positive academic experience.

MaryBeth experiences test anxiety and classroom anxiety. She experiences general anxiety, social anxiety, and frustration due to being different than those around her. Certain triggers cause meltdowns and, prior to her diagnosis, she was "living in a bubble not in tune with the real world." She now identifies herself as more open with those around her but still finds herself extremely nervous. Her interaction with other students takes place mostly in class. She feels that she is mostly independent and does not feel the need to be involved in a social clique. She spends her free time doing solitary activities such as reading and baking. In fact, she revealed that if she did not pursue accounting she would probably be a baker because she derives so much pleasure from creating special treats. MaryBeth lives on campus and the experience has been different but good; however, she goes home on the weekends to "decompress."

Her time at her community college has been a good overall experience. Her suggestion to others students with ASD who attend community colleges is to be open and start small. In her opinion, students with ASD should be confident in their decisions and behavior just as she is because, "different is a trend."

Nicholas. Nicholas is a male sophomore community college student. The interview with Nicholas lasted 21 minutes and 31 seconds. He is enthusiastic about his choice of graphic design as a major. Despite his enthusiasm, his initial community college experience was "very rough and very stressful." Financial concerns and confusion over book purchases played a key role in his stressful start. "It kind of stressed me out knowing that books were expensive and pumped full of language…and expensive as hell." He was frustrated when he learned that he had

purchased the wrong book and lost money due to the purchase. He talked about his parents being concerned that he had used the money they had shared with him for the purchase of the books he thought he needed. The DSS director learned about his challenge with the book purchase and offered some guidance and instructions for purchasing books in the future. He seemed to be wary of the financial burden of school and of a major concern about disappointing his family.

When asked how he prepared for college he responded in a literal manner by informing that he "started off by getting some supplies…mostly for home, like bedsheets, just stuff to hold for my walk [like a backpack], to clean myself…a foot locker to keep my stuff in." In reality, the question was intended to determine how he went about getting prepared psychologically and socially. The response, however, did not surprise me because it is often the case that individuals with ASD are literal in their interpretation of questions.

His current community college was not his original choice. Rather, he had aimed to attend an art institute in a nearby state. However, his mother persuaded him to reconsider his choice and to give community college a try so he could "know the basics about going out" on his own. He chose his community college because it offered the major he was most interested in pursuing. In addition to his parents, his high school counsellor supported him as he prepared for attending college. The counsellor encouraged him to take his school file to the DSS office during orientation in order to apply for accommodations and other supports.

Nicholas became livelier as he began telling me about his major and his intention to become an animator. Characteristic to ASD, he has a strong interest and depth of knowledge in one particular area. In his case that area was Manga, which he explained is a comic book in Japan. At different points of our interview he returned to his discussion of Manga artists and told

me more about the art and his own art. It was also during this part of our interview when he began to jumble thoughts into sentences making it more of a challenge to ascertain his train of thought. He shared that some of his favorite manga artists dropped out of college. That discussion lead to him sharing more about the stresses of college life that he has faced as a freshman. Nicholas tries to make it to classes on time, do well in his classes, and he pulls "late nighters all the time." This conversation led me to believe he may have given some consideration to leaving college and may also be looking to external mentors from the comic world for guidance in terms of their career paths. The interview turned more positive when Nicholas began describing his living situation. He lives on campus and has a roommate whom he describes as someone who has experienced the same as he. The two have become good friends. As he put it, "we always have each other's back."

Upon graduation, Nicholas aims to enroll in the art institute he had originally hoped to attend. The caveat to attending the art institute, as he noted, is his inability to drive. He plans to get through his semester before attempting to learn. He feels he has too much stress from school to fully concentrate on the rules of the road and feels it is too much to attempt at the same time.

Nicholas's community college experience has been "pretty good." His college understands, listens, and helps find solutions for students with disabilities. His high school counselor provided him with a folder that included all documentation needed for seeking accommodations at his community college. It was his counselor who encouraged him to seek out the DSS director. He feels that her support helped the transition and he noted that he is still learning to advocate for himself. DSS has been helpful finding solutions to academic challenges. He provided an example where he was struggling with test taking in one class.

> Unfortunately, in spite of my hard work and study, I managed to bomb two test with the same grade mark. And, I was very stressed out, but I had to stop. So, a friend of mine who also has a disability named Kyle, who was a veteran of the Iraqi war, told me that there was a way they could help me out. The hard part, the thing that I was having trouble about the class, I was having a hard time paying attention to the course and listening…He told me that I could record what the teacher said [if] it was confirmed by the disabilities center.

Nicholas had no idea about the possibility for the accommodation. Instead, a classmate noticed his difficulties and anxiety about the tests and suggested he seek the possibility to record lectures. It can be assumed that his classmate, who has a disability, was attuned to the anxiety that Nicholas was experiencing and was able to provide peer support.

He described his peer interactions positively. He enjoys seeing some of his high school friends at the community college and remarked that some of his peers "are really good and very kind." Nicholas chooses not to disclose his ASD diagnosis for fear that people will struggle with understanding him. Nicholas shared how he often socializes at night and jokingly suggested that his socialization is like the song, "The Freaks Come Out at Night, but mine's the creep." I noted the creep as a reference to Minecraft. He is more negative about the dormitory life at night. He seems annoyed with the rowdiness and late-night antics caused by some.

Nicholas shared that he is happy with accommodations that allow him to take his tests in "peace and quiet" at his DSS, but he also gets extremely stressed when it takes him a long time to finish because he is worried he will miss his next class or will be late for his club meetings. He shared that he "bawls a lot", but he seeks God to help "fight the stress and autism." He described his effort to succeed in his academic work as a 20 on a scale of one to ten. To appease

his self-described perfectionist tendencies, he seeks writing support from the Writing Center and he attends organized study hall and he believes both help him academically. He also has an ADHD diagnosis, which can be assumed to drive his challenges focusing in class and in his time management approach. He learned about his ASD and ADHD diagnosis at five years old and can recall past experiences of it "spiking." He shared that he still has meltdowns and continues with some social problems, which he did not delve into during the interview. He ended the interview by sharing what he wanted others to know:

> All I can say is this, if you ever meet somebody who has a form of autism or a bad case of ADD, they [should] try their best to help them, perhaps as quick as possible. They [should] try, you know, like we're doing right now, that whole psychological talk thing, minus the recording that is…so they can discuss what their problems are. They can try and figure out new ways to fix it.

He went on to suggest that others should listen and be empathetic to the characteristics of disorders that affect other students or peers. He encouraged those others to see if they can find ways to help improve the college experience of those affected by ASD or other invisible disabilities.

Ella. Ella is a jovial, female community college freshman with an undeclared major. The interview with Ella lasted 29 minutes and 30 seconds. She is considering to major in elementary education because her mom identified that she is good with kids. She enjoys drawing and notes that others, kids and parents alike, show interest when she is working on a piece. She also enjoys music, ceramics, and writing. Her mom wanted to study ceramics in college but didn't, and Ella is taking a ceramics class as if to fulfill her mom's dream. While the hobbies keep her busy, she attributes writing to helping her the most. She has improved her speech

through writing and revising. She also uses it as an outlet where she enjoys writing fan fiction, which she explained as "something you write, relating to a move, an artist or something…that you like and you want to re-write a story and storyline and script. It's really fun." She does not share her fan fiction but she enjoys revisiting her work as if it is a fiction novel. This was interesting because it seems to relate to a technique called scripting that is often a characteristic of ASD in childhood. Also, given the social and communication challenges of ASD, Ella has found a way to express herself through communication in a format that does not require face-to-face contact.

Ella talked about academic subject areas when she was asked whether she enjoyed high school. In fact, the question was evaded. She was terrible at math but loved art, writing, and history. She has an excellent memory vividly remembers all textbooks on the topic of history. Ella was terrified before starting college. She attributes it to never having lived anywhere else, not having spent much time socializing with kids in her neighborhood, and feeling anxious about having to get to know and socialize with new people. She tries to listen instead of talking and she prefers to hold her own opinion so she will not put herself in a precarious situation with new people. Her successful transition from high school to college was credited to having made a friend in a history class with whom she could share conversation. In reference to her friend, she stated that "we just help each other out." Scheduling is critical and getting registered with her college's DSS was valuable. Her high school counselor assisted her with both steps. The DSS director at her community college is "tremendously" helpful and she does not consider that person to be an advocate, rather, she considers the director to be a "friend."

Ella lives on campus and has a roommate. She was anxious because her roommate was graduating at the end of the semester and would soon be moving out. She was nervous about

who would be moving in next and tried to remain positive about the impending newcomer. She chose to attend her community college because it was close to home and would be easier for her mom to drive to the school to get her. Ella shared that she did not have a driver's license but was planning to get her license and a car over the coming summer. She joked about her discomfort driving because she finds it challenging to multitask. She enjoys going home on the weekends and tries to complete assignments rather than socialize.

Ella prefers to socialize on campus and said her classroom experiences are "pretty fun." She has had "pretty good" experiences with faculty and perceives them to be "really friendly." She went on to say, "I think of them as friends. They're just friends that really look out for you, make sure you do right." She arrives early to class in order to talk with her peers. She does not use social media so her main interaction with her peers are face-to-face. She feels a bit sad when she does not get to see her friends or peers due to a busy schedule. Her interactions at college have been mostly positive and she recognizes the imperfection of life in that some arguments will occur. However, she reported having an open mind and knowing how to go with the flow.

Ella tries hard in her classes but was also quick to point out that she tries to allow herself to relax so she would not "spazz out." She works herself up from stress about deadlines and roommate supports her by telling her to "calm down. Just take it one at a time and just [be] calm, sit down, calm down, relax, just take this one step at a time. You're not running a race, you're just asking one step at a time, baby steps. Okay?" She described that it is useful having her roommate and the writing center as supports.

Sometimes she faces an emotional toll with things in life. One example is the first time she argued with her roommate about cleaning the bathroom and their differing opinions of what constitutes "clean." Another area that causes her stress is drama from her other friends. She has

a tendency to stress out about other people's problems and puts herself as a second priority in order to put her friends' issues first. She said "I usually don't put myself as a top priority. I'll just put myself way back. I just gotta' sometimes realize that life is not always about me."

The college DSS director, the writing center, and her faculty are contributing factors to Ella's success in college. She said, "They're all helping me. I mean, if I could trade it for something better, I wouldn't. Because as far as I know, this will probably be the [best] year that I'll probably get." She did not identify and major challenges; however, she was puzzled about not being able to use calculators during tests because she had the accommodation in high school. She has not sought advice from DSS about it because she perceives she will not receive the accommodation. She receives extended time on tests, notes from teachers, and other accommodations, which she did not divulge.

When prompted to share her thoughts about what she feels is important for others to know about working with individuals with ASD, Ella responded as follows:

> Approaching autism, I will tell you something. Maybe the best thing is to not just to find something they are good at but also to listen because people with autism, it really is hard for people to understand what they're going through. Even though we're different from everyone else, I'm not saying we're individuals, because everyone is individual. God made us special, one of a kind. Even though they say some people are alike or we just conform something, but we are amazing. We are singular amazing people. We've just got to find something that we have a purpose for. Even though we may not have purpose, but we're here for a reason. And, just the best way to approach someone with autism, just sit down and listen. Make a friend, make friends with them. Because it's better to

reach out to them than just to no do anything at all. 'Cause it will just make them feel like they are just not like everyone else, and just be isolated.

Ella feels isolated at times because she is different and does not understand why others treat individuals with ASD, such as herself, differently. "Nobody likes being on labels." She faced more challenges being labeled in high school and finds college more freeing. She does not typically self-disclose her ASD diagnosis because she knows everyone is different and has a different perspective. She feels that even others who might have an ASD diagnosis may not truly understand what she experiences, just as she may not fully understand their experiences. With that, Ella reiterated her point about listening to others by stating "…all you need to do is listen and prepare yourself. Because there are interesting people out there. You never know who you're going to meet. They might change your idea or might change your life one day."

Seth. Seth is a male community college sophomore. The interview with Seth lasted for 36 minutes. He received his ASD diagnosis as a late teen and sought the diagnosis himself. He always suspected he had ASD because he was always quiet and was an "uncommon one"; therefore, his results were unsurprising to him. In fact, he described himself as "different than a lot of people around." At the start of the interview he explained that he was not good with eye contact, not because it was painful like some with ASD report, but mostly because it felt too awkward.

Seth had a harder time in high school than community college and enjoys not having as much homework in college. He especially enjoys being able to work in class. He stays on campus until one of his parents or grandparents pick him up because he does not have a car. The time spent waiting allows him to complete his work before going home. He did not prepare much for attending college other than keeping an open mind and trying not to worry about

things. Seth has high levels of anxiety and he takes medicine to control any worries or stressors of college life.

Seth's parents were helpful getting him transitioned to community college. His parents have been able to help him ask for appropriate accommodations, mostly related to his challenges with anxiety. He likes having his parents around to help and thinks it is useful for other students to have parental support. "When it comes to going, and talking to someone that they need to, I think having a parent around" is important. He strongly encouraged colleges to allow more involvement from parents because he feels that support system is integral for student success.

His community college experience is positive and has not involved bullying or anything negative. He likes the school because of its proximity to home and the programs available for study. He does not live on campus and prefers to live on his own and would not enjoy having a roommate. He is currently studying IT classes because it will look good on his resume, but he is interested in majoring in graphic design. His classroom experiences are "not really stressful" and "definitely calm and sometimes quiet." He was appreciative that his instructor allows for frequent breaks because he noted that he gets bored easily. His experiences with faculty have been positive and he has had easy access to help. Seth believes his community college and other colleges can help students with ASD be successful in their education pursuits with a few considerations:

> My suggestion would be to, like when it comes to accommodations, let people that they know do a lot of things for them. I know a lot of people like that don't like having to do personal things themselves like go on their own to sign something. I've had my parents kind of be able to decide some things for me so I don't have to deal with it. But sometimes I do it myself, I don't mind that. I feel like if there was someone who was

way worse than me with autism, then they shouldn't be, when it comes to signing things that's pretty private, and they wouldn't be able to do that anyway. But when it comes to going and talking to someone that they need to, I think having a parent around sometimes they encourage you to talk yourself but if it was a student who was really bad at that, then they shouldn't really make him.

Essentially, Seth suggested students with ASD would benefit from having someone to assist them and serve as a support system. He shared that going around campus to different offices can be overwhelming but having someone to help could make that aspect of college life easier.

Seth does not identify with a particular social or study group on or off campus. He does not like being assigned to group projects, especially those that involve having to meet outside of class or that involve phone conversations. He did, however, describe involvement as a photographer and videographer for the fine arts programs at his college. His volunteers his time for both positions. His worst college experiences was an event that happened when his legs gave out during one of his filming sessions. Otherwise, he has no complaints or negative experiences that have caused a hindrance to his success as a student. He feels like he is part of the institution. "I think it's nothing to do with being known or popular. Bust at the same time, there's a lot of people that know me. Even if I forgot who they were…Everyone knows about you in some way."

Seth reflected on his ASD diagnosis and his diagnosis of anxiety disorder. He has watched educational videos about ASD characteristics and found that an extremely wide array of behaviors can be seen. He probed me to know whether others who have been interviewed had similar behaviors to his own and whether others have been diagnosed with anxiety. I found this

to be a rather interesting conversation. I feel because of his late diagnosis, he is still learning about ASD and likely does not have a network of other friends with ASD. It left me wondering if he is a little uncertain or insecure about his diagnosis.

Emerging Themes

The effects of the college environment through each student's precollege traits, the characteristics of the institution, the interactions with agents of socialization, the institutional environment, and the quality of student effort were explicated in the interview summaries, which provided a glimpse into the experiences of seven students with ASD, and are useful for informing practice. It is the common themes among the interviewees that are most significant for exploration due to their ability to influence future practices that may influence the academic success and retention of students with ASD. An inductive examination of the interview transcriptions took place where data was reviewed, coded, and organized in an effort to identify themes related to the experiences of students with ASD in the Mississippi community college system. Two primary themes that emerged from this study are: (a) peers make a difference and (b) college is stressful and self-determination matters.

Figure 3 is a depiction of the two primary themes and the four sub-themes. A detailed explanation of both primary themes and the sub-themes in relation to the common lived experiences of students with ASD in Mississippi community colleges follows. The findings are reviewed under the lens of person-environment theories, specifically the ecology model of human development that was introduced by Urie Bronfenbrenner (1979) and discussed in Chapter II.

Peers Make a Difference

Nearly all participants expressed how their community college peers play a role in their experiences. By exploring each students' interactions with agents of socialization and their institutional environment, it was made clear that the influence of peer support, assistance, arguments, living arrangements, and understanding mattered to the participants. Such peer interactions can be considered as a component of the microsystem, or immediate settings, of the student and their environment.

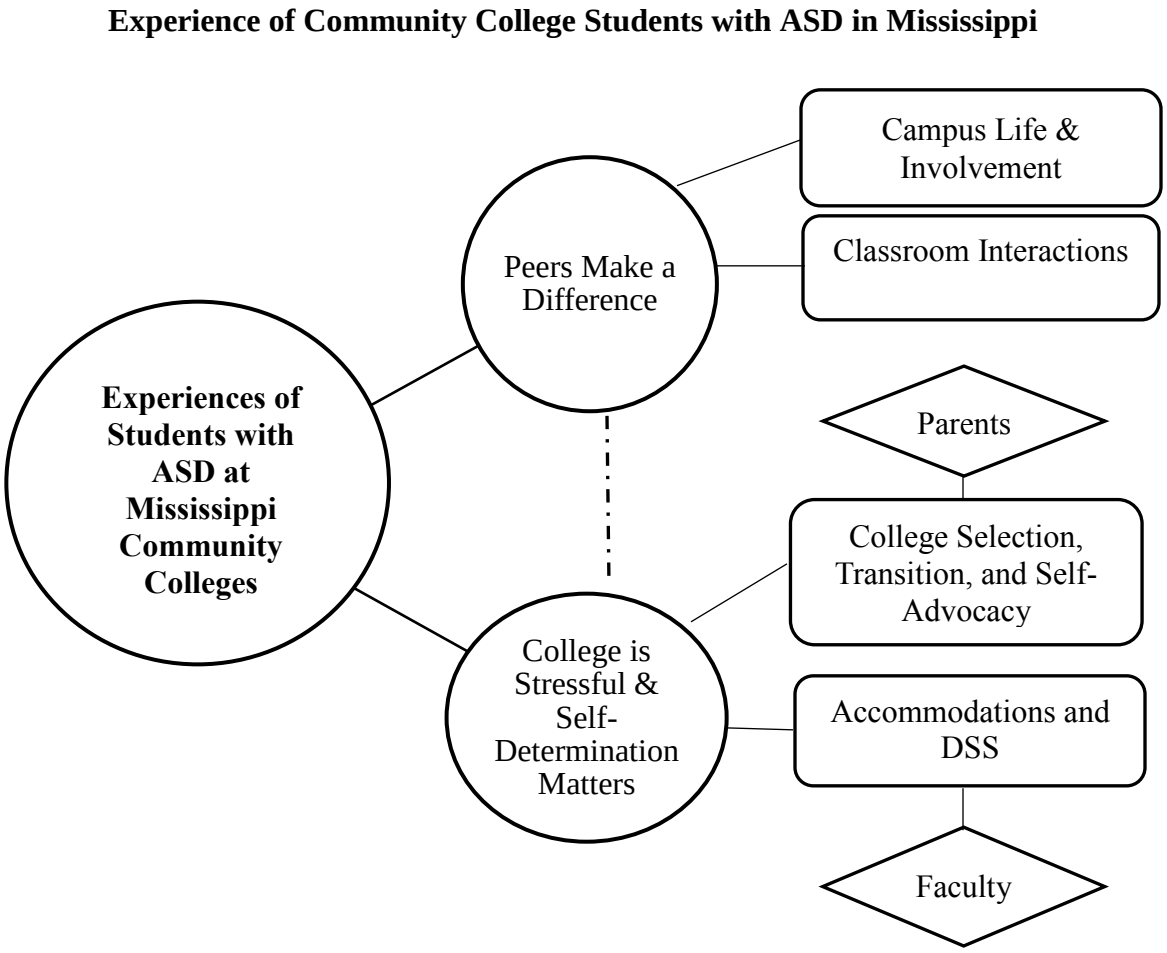


Figure 3: Relationship among themes and subthemes of experiences of students with ASD in the Mississippi community college system.

Classroom interactions. Interaction before, during, and after classes can be profoundly important. Classroom experiences are embedded in the microsystem of a student's college culture and involve a plethora of interactions and potential stressors: students, faculty, group work, individual tasks, exams, accommodations and the anxiety and stress that comes from those situations. All participants perceived their peer interaction positively. MaryBeth, Ella, and Seth pointed out how they talk to students before classes. MaryBeth and Ella use it as a time to connect to students. Not uncharacteristic for students with ASD, all of the participants were content spending time on their own and did not feel compelled to socialize when not in class. That does not suggest that socialization did not take place outside of the school day; however, it appears more likely that students will interact with classmates or those within the same major and will not seek other places for socialization. Ben referred to his theater group as his social group. In Joseph's case, he chose not to live on campus his first year and, because he commuted, he did not feel he interacted much with his peers. However, he feels that he interacts quite often with his core social group, which is his theater group. The theater group in this case acts as a friendship group within the microsystem of the college student ecology model. He reported spending long days with the group, especially during rehearsals for upcoming productions. The theater group consists of like-minded individuals, which likely affirms his sense of belonging in the college system.

Peer influence can impact the development of a student's self-concept and their ability to succeed academically. Students face challenges in their transition from high school to college. Hadley (2011) noted that students must work harder at developing the skills for understanding their disability and at asking for accommodations. Nicholas shared the story of how a peer noticed his struggle with a particular course where Nicholas struggled to listen and take notes

needed for a test. His classmate, an Iraq war veteran, offered advice and support to help Nicholas get an accommodation that allowed him to record lectures. Nicholas had not known he could ask for that type of support. Without the guidance from a peer, Nicholas may not have achieved a successful outcome in the course. Peers can serve as an integral support system. At the same time, peers can derive a sense of satisfaction from their mentor role and it could equally offer them a sense of purpose in their own campus life.

Peer interaction can also affect a student's sense of satisfaction with their college experience. Feelings of inclusion made Seth feel positive about his community college experience. He feels that "people know [him]" and he enjoys it. Ella shared that she enjoys communicating with her classmates prior to classes. However, she noted that when times get busy she does not have much interaction and it makes her sad. She hopes her peers will make an effort to "just sit down and listen" to students with ASD. She believes that peer curiosity and understanding can make students with autism feel like everyone else and not be so isolated. Nevill and White (2011) also expounded on peer openness and acceptance as an important factor to preventing feelings of isolation in students with ASD. Feelings that may ultimately turn into aggression, depression, and school dropout.

Campus life and involvement. Pillay and Bhat (2012) suggested that students with ASD live off campus and commute in order to lessen stress related to the transition from high school to college; however, this study's findings suggested that students who lived on campus in dorms had positive experiences and seemed more involved in campus activities and peer groups. Simon lived on campus and was the school mascot, Ben was greatly involved with his school and local theater groups, Nicholas enjoyed having a roommate that he could look out for and vice versa, and Ella was the social butterfly who enjoyed socializing and attending Harry Potter

parties and the like on campus. MaryBeth seemed more at peace with the community college environment and with being in a place where being different is acceptable.

All of the participants who lived on campus had roommates and those experiences were important for self-awareness, self-development, and social development. Ella described her current roommate as her friend and was anxious because her roommate was graduating soon. She was concerned about who would replace her friend. She also divulged that her roommate helped her through stressful moments related to school. Nicholas also expressed feelings of gratitude that he had a roommate who he could relate to and they could look after each other. Simon reported that he felt respected and he was looked after by those in the dorm. Ben enjoyed living on campus, despite his parents' concerns. He perceives campus living to be a typical part of college life. He does not feel compelled to hang out with his roommate, but he accepts it as a part of student development and growth in college. MaryBeth was prepared for having a roommate, but was aware that it would be "different." The feeling of having a close friend is core to a student's microsystem. Additionally, the social interaction with a roommate influences student development.

Learning how to navigate social situations when new roommates replace old ones and when arguments arise is another element of student development. Understanding how to communicate with new people can be a stressful experience; stress and anxiety are noticeably high among the students with ASD interviewed for this study. In Ella's case, her roommate was graduating and she was coping with fact that she would need to get to know another person the following semester. She was also losing a member of her support network. Ella had spent time getting to know her roommate and had experienced arguments with her. While unpleasant, she learned to understand how to understand another person's perception of, for example, what

constituted a clean bathroom. Ella, like Nicholas, also felt that their roommates understood them. Such types of situations are important learning opportunities. Nevill and White (2011) believe that the ability to demonstrate advanced social, communicative, and adaptive skills are integral for a student's success in postsecondary education. Likewise, students with ASD who live on campus are able to develop their independent living skills, which will be carried into life after college (Highlen, 2017). Students with ASD are often challenged in such areas due to the characteristics that are hallmarks of autism (Nevill and White, 2011).

Living on campus is less rushed and it is easier without having parents around according to Ben. He identified the ability to be independent and make decisions without having to rely on his parents. Living on campus gives the students an opportunity to move from having an advocate to becoming a self-advocate, which is an important life skill. All "newly entering students must adjust intellectually and socially to their college setting" (Hadley, 2011, p. 78), which will happen when there is a certain degree of separation (both physical and emotional) from significant others who have supported the student in their high school years (Hadley, 2011).

College is Stressful and Self-Determination Matters

All college students are confronted with stressful situations in college. For students with ASD, stress can be magnified as part of the dynamic between the person-environment interactions (Glennon, 2001). All participants expressed feelings of anxiety or stress that stemmed from interactions in or with their college environment. The lived experiences of the seven participants seems highly affected by the need to self-advocate, the need to self-regulate, and the need to develop self-knowledge. These three skill sets are influential in the development of self-determination, which can impact how integrated the student becomes in their college and how success their academic outcome may be (Garrison-Wade and Lehmann, 2016; Freedman,

2010). This theme is affected by the student's microsystem (e.g. classes), mesosystem (e.g. friendship groups and classes), exosystem (e.g. parent's involvement and institutional policies), and macrostyem (e.g. Section 504 as it pertains to laws about accommodations). Based on the research findings, college selection and the transition, and accommodations and DSS are notable subthemes. Embedded in these two subthemes are the influential roles played by parents and faculty.

College selection, transition, and self-advocacy. The decision to attend community college was encouraged by parents of each interview participant. Based on the findings, parental involvement was acute. Five of the seven participants had plans to attend a four-year institution; however, they were either influenced or encouraged to first consider attending a community college. Both of Ben's parents attended community college, which influenced his decision. MaryBeth was persuaded to select community college because of the debt her parents incurred while undergraduates at a four year institution. She had not considered community colleges, but her parents were looking at "all cylinders," such as small class size and more personal interaction with faculty. Nicholas, Ella, and Seth chose to attend their community colleges because neither had a driver's license and both relied on their parents to drive them home on weekends and during holidays; close proximity to home made the travel easier. Simon's choice to attend community college was influenced by his parents and his selection as the school mascot. Joseph chose to attend community college because one of his parents was experiencing health issues and he preferred to stay close.

Highlen (2017) recommended that Students with ASD should consider school enrollment, class sizes, configuration of campus, proximity to home, and tuition and fees of community colleges. Indeed, the findings from the study suggest that lower costs, closer

proximity to home, smaller college environment, and parental health were the driving factors of parents encouraging community college rather than four-year institutions.

Transition support is integral for students with ASD. As students transition from high-school to post-secondary education they are confronted with a change in expectations. This is a time in which students become self-advocates. The ability to self-advocate may impact the postsecondary success for students with ASD (Highlen, 2017; Freedman, 2010; Adreon and Drocker, 2007). Self-advocacy requires a heightened level of independence that may not come easily or may not have been taught during a student's K-12 experience. "For students whose parents and teachers have always taken on the advocacy role, their new-found independence must begin first semester freshman year with them assuming increased responsibility for their accommodations each semester" (Wolf, Thierfield Brown, Kukiela Bork, 2009). However, an increased demand of independent living skills and executive functioning skills, social communication deficits, individualized academic and nonacademic support needs, DSS service needs, and co-morbid diagnoses such as depression, anxiety disorder, and attention deficit disorder can pose major challenges for the students with ASD who are transitioning from high school to postsecondary education (Hendrickson, Woods-Groves, Rodgers, and Datchuk, 2017).

As such, not all students enter into postsecondary education as sole advocates for their needs. Five participants of this study mentioned the involvement of either a parent or a high school counselor in their transition process. Joseph did not realize he needed to register with his college's DSS until his high school IEP coordinator encouraged him to do so. "I set up scheduling and stuff here and got everything sorted out, and then everyone was like, 'have you been by that office,' and I was like, 'they have an entire office for it?' Then they sort of just sent me on my way." Nicholas also received guidance from his high school counsellor during the

summer prior to his start at his community college. He was given a folder that contained all of his IEP information and he was instructed to take it to the DSS on his campus in order to register for services. Nicholas confided that he was still learning to self-advocate. Ella's high school counselor sent her records to her community college's DSS and the office contacted Ella prior to the start of the semester to ascertain her needs for the transition. Seth's parents "always helped with school-related things when getting ready." Additionally, he continues to seek assistance from his parents. For example, his parents help him locate places on campus, complete forms, and attend meetings, even as a sophomore. Simon transitioned to college with the assistance of his parents. For Ben and MaryBeth, transitioning to college was primarily their responsibility. Ben is still learning to self-advocate and knows it is needed.

Accommodations and DSS. Students with disabilities have access to academic accommodations mandated by Section 504C/ADA, provided they disclose their disability with their college's DSS (Longtin, 2014). Accommodations can include "selection of a preferred seat, permission to record lectures and presentations, opportunities to take exams in solitary environments, and extra time for tests" (Highlen, 2017). For many of this study's participants, stress and anxiety were at the core of their needs for accommodations.

All seven participants were registered with their DSS as a means to gain academic accommodations or supports. Additionally, in seeking and receiving accommodations, faculty have played a role for several of the participants. Ben strongly encouraged others with ASD to seek support from their DSS office. He benefitted from accommodations related to his test and performance anxiety. Ben only learned about his college's DSS office from faculty who were concerned by the frustration and anxiety he displayed in class. When he began having outbursts due to poor performance, he was guided to seek services through DSS. Joseph's

accommodations include prolonged test times and extended deadlines. He suffers from anxiety and stress about school issues and also feels overwhelmed by details. MaryBeth's accommodations support her challenges with test and classroom anxiety. Her past experiences with anxiety coupled with her frustration with being different triggered meltdowns. She did not disclose the specific types of accommodations but described her DSS as "hugely helpful." Her faculty have been understanding of her accommodations needs. When she had a negative experience with one faculty member, her DSS director intervened and disclosed her diagnosis to the instructor and worked to find suitable accommodations. Nicholas applied with DSS at his college after learning about the office during his orientation. He received academic accommodations with the support of his DSS. Additionally, he received guidance on purchasing books for his courses, an independent living skill he struggled with when first coming to college. He experiences a great deal of stress when taking tests and when receiving extended time on tests because he is concerned he will miss his next class or group meeting. Ella likens the personnel in her DSS office to friends. She has received the standard academic accommodations but has not requested other supports because she is unsure which additional supports are available to her. Both Nicholas and Ella need or want additional services but have not requested them because they do not believe the services will be offered. Seth receives frequent breaks due to a short attention span and he receives supports related to anxiety, which he did not describe. Unlike Ella, Seth only visits his DSS for formal needs. Simon receives several academic accommodations, such as extended test times.

Limitations of Data

This research study had limitations in relation to the study population and the research method. The study was limited to Mississippi community college students with ASD who had

registered with their respective DSS. Accommodations and other supports available through offices such as DSS are contingent upon disclosure of a diagnosis, which is voluntary (U.S. Department of Education, 2011). It was perceived that by interviewing students that were registered with their DSS, it would be easier to ascertain their experiences receiving accommodations. It also ensured that all applicants had an autism diagnosis and had an understanding of their invisible disability. Such specifications for the study population meant a limited pool of potential interview participants. In fact, some community colleges responded that no students with ASD were registered during the school year when the study took place. As research suggests, not all students with ASD choose to disclose a diagnosis upon entering college (Schreur and Sachs, 2014). The reasons are varied and can involve attitudinal barriers including perceived negative perceptions of others and social stigma. The unwillingness to self-disclose suggests there are fewer students with ASD in community colleges than suspected (Pingry O'Neil, Markward, & French, 2012; Patton, Renn, Guido-DiBrito, & Quaye, 2016; Yuknis & Bernstein, 2017) and hinders research efforts to study the population on college campuses.

An additional limitation to the study population was realized through the symptoms often inherent in ASD. The clinical presentation of ASD is widely varied in each person; however, it is typical to see social, behavioral, and language difficulties. Social skills such as "eye contact, starting and ending conversations, and regulating interpersonal distance" can impair conversations (Wolf, Thierfeld Brown, & Kukiela Bork, 2009, p. 17). Those with ASD may appear withdrawn, aloof, avoidant, and may have poor understanding of social cues, such as nonverbal actions, that influence the flow of conversations. Behavioral difficulties such as an intense preoccupation with specific topics or activities or repetitive behaviors can also interfere with communication with individuals with ASD. During times of stress, certain mannerisms

may increase, which can be distracting for those interacting and communicating with the individuals. Conversation and discourse are typically affected in individuals with ASD. According to Wolf et al. (2009), "expressive language is often superficially good, although there may be formal or pedantic phraseology with a narrow range of topic choice and use of peculiar phrases (p. 19). Additionally, Freedman (2010) described deficits in Theory of Mind (ToM), which includes challenges understanding the "thoughts, feelings, and perceptions" of the communication partner, challenges providing the listener with enough background information to follow the train of thought, and challenges with figures of speech and idiomatic expressions.

All three areas of difficulty affected the dialogue during each interview. Although the interview questions were designed to elicit in-depth responses, most participants provided succinct, matter-of-fact responses without much elaboration. Participants were noted to use superficial language and did not expound upon follow up questions. At times, some respondents seemed pained to respond to questions and it was noticed that some participants struggled to find the words to express their points clearly. One respondent apologized for his lack of eye contact before the interview started.

Finally, while I aimed to be unbiased, my close connection to the autism community through my son, through my involvement with autism-related advisory committees, and through my professional responsibilities may have impacted my findings. The findings from my seven interviews may not be generalizable to all students with ASD in the community college system in Mississippi.

Delimitations of Data

As noted, this study was limited to students with ASD in Mississippi community colleges who were registered with their college's DSS. While there are believed to be a number of

students with ASD on community college campuses, this study specifically aimed to explore students who had interactions with their DSS, with accommodations offered, and the subsequent experiences with faculty, peers, and the institution. Only students registered with their local DSS could access accommodations. All participants were in school during the time of the interview and were either new to the environment or soon graduating. This offered perspectives of newly entering and experienced students with ASD.

Chapter Summary

Chapter IV presented summaries of all seven interviews. Two themes and four subthemes emerged from the data analysis, which derived from the semi-structured interviews carried out with seven Mississippi community college students with ASD. A discussion of the themes, sub-themes, and the influence and interaction of parents and faculty within those themes and sub-themes was shared. Chapter V includes a discussion of the findings in relation to the literature. Implications for practice as well as future research are discussed.

CHAPTER V

DISCUSSION

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In chapters I through III, my co-author, Ronda Bryan, and I expounded on the role of society in constructing disability, thus influencing the marginalization of an entire population of individuals. We explored the public and private goods argument as it pertains to SWDs. This is a significant point of exploration because it focuses on the importance of postsecondary education for SWDs, both from a social justice and equity perspective. The argument can be made that students and society benefit from the inclusion of SWDs in higher education.

The interview protocol for both studies was based on Pascarella's General Causal Model of Student Development. The model applies to the environmental factors that influence postsecondary retention and completion. This model was selected for its ease of use with our two sub-populations. Also, because social and environmental barriers can strongly affect SWDs, it was deemed useful to explore those influences on the two sub-populations in Mississippi community colleges. The aim of the studies is to influence policies and considerations of institutional climate in Mississippi community colleges. Research has established that even with legally mandated accommodations, both of our sub-populations have an attrition rate of approximately 85%. By highlighting the lived experiences of SWDs, community colleges and

other postsecondary institutions will understand that more than academic accommodations are required for retention and completion. SWDs are no different than other populations of students. They participate in college life in much the same way as their non-disabled counterparts. Their participation, however, can be hindered by misunderstandings and social factors that are not conducive to academic success. Both studies aim to change the narrative so SWDs will succeed in Mississippi postsecondary institutions, and schools will benefit from higher completion rates.

Chapter IV presented data analysis from my independent study of students with ASD in the Mississippi community college system. The findings were reviewed, summarized, analyzed, and coded. Two primary themes emerged: (1) *Peers Make a Difference* and (2) *College is Stressful and Self-Determination Matters.* This chapter offers an overview of my study, a discussion of the findings in relation to the literature, and the implications for practice and research.

Overview of the Study

This study explored the educational experiences of Mississippi community college students with ASD. Three research questions guided the decision to use Pascarella's General Causal Model of Student Development. The research questions are: (1) What are the experiences of students with ASD within the community college system in Mississippi? (2) How do the experiences affect the students' perceptions of a successful degree completion? (3) What do students with ASD believe can be done within their college to support their educational endeavors?

A semi-structured interview script was designed to uncover experiences related environmental factors that influence postsecondary retention and completion and to provide answers to the research questions. Seven students were interviewed for this study. All

interviews were face-to-face and each interview took place on the participant's respective community college campus. After the interviews were transcribed, an inductive review of the rich, thick descriptions provided by study participants revealed two primary themes and four sub-themes. The findings also suggested two influential groups of people that affected the community college experiences of students with ASD. Those themes are: (1) Peers Make a Difference, with sub-themes titled Campus Life & Involvement and Classroom Interactions; and (2) College is Stressful and Self-Determination Matters with sub-themes titled College Selection, Transition, and Self-Advocacy and Accommodations and DSS, both of which are influenced by parents and faculty. These themes were presented in detail in Chapter IV. Table 4 illustrates the themes.

Table 4

Research Themes that Emerged from the Data

Theme	**Sub-Themes**
1) Peers Make a Difference	A) Campus Life and Involvement B) Classroom Interactions
2) College is Stressful & Self Determination Matters	A) College Selection, Transition, and Self-Advocacy B) Accommodations and DSS

There are fifteen community colleges in Mississippi (MCCB, 2018). It would seem that more than seven students would have an ASD diagnosis. However, not all students with ASD register for services through their campus DSS, which was the delimiting factor for the interview pool. An unwillingness to self-disclose is a common issue for students with ASD (Schreur and Sachs, 2014). Additionally, students with ASD may not have chosen to be interviewed due to social challenges often inherent in ASD (Freedman, 2010; Wolf, Brown, & Bork, 2009).

Discussion of the Findings

Within the last decade, more research related to students with ASD in higher education has emerged. Previous studies have focused on successful transitions for students with ASD who enter postsecondary education institutions (Bell, Devecchi, McGuckin, & Shevlin, 2017; Stansberry-Brusnahan, Ellison, & Hafner, 2017; White et al., 2017; Mitchell & Beresford, 2014; LoBiano & Kleinert, 2013; Kelley & Joseph, 2012; Korbel, Lucia, Wenzel, & Anderson, 2011; Garrison-Wade & Lehmann, 2009) and college supports (Highlen, 2017; Longtin, 2014; Gobbo & Shmulsky, 2012; Pillay & Bhat, 2012; Hansen, 2011; VanBergeijk, Klin, & Vokmar, 2008).

Studies of the experiences of students with ASD at the postsecondary level are limited (Cox, Thompson, Anderson, Mintz, Locks, Morgan, Edelstein, & Wolz, 2017; Gelbar, Smith, & Reichow, 2014; Wiorkowoski, 2015). Additionally, there is scant literature available that uncovers the influence of social and environmental factors on the academic success of students with ASD. More emphasis has been placed on accommodations, access, and support services (Fleming, Oertle, Plotner, & Hakun, 2017). Therefore, this study was an effort to move the discussion to social and environmental factors that influence college retention and completion through the use of first-hand accounts.

This study aimed to identify how social integration, a sense of belonging, self-advocacy, and attitudinal barriers affected the experiences of students with ASD. The study uncovered many challenges that have been identified as hindrances to the postsecondary success of students with an ASD. Those challenges include: (1) struggling with new situations and unexpected changes; (2) the need to make social contact; (3) information processing and time management; (4) self-disclosure decisions; (5) mental health complexities; (6) sensory sensitivity to the surrounding environment; (7) social skills deficits; and (8) multi-tasking and organization

difficulties (De Ornellas, 2015; Dubin, 2009; Longtin, 2014; McKeon, Alpern, & Zater, 2013; Van Hees, Moyson, & Roeyers, 2015; Wolf, Thierfeld Brown, & Kukiela Bork, 2009). While expectations, challenges, and experiences differed, each participant was affected by one of more of the aforementioned challenges.

Taking into account the number of challenges that confront students with disabilities, in addition to the lack of understanding related to the effect of social integration, sense of belonging, self-advocacy, and attitudinal barriers on retention and completion, this study was guided by the following three research questions: (a) What are the experiences of students with ASD within the community college system in Mississippi? (b) How do the experiences affect the students' perceptions of a successful degree completion? (c) What do students with ASD believe can be done within their college to support their educational endeavors? In the following sections, the research findings and themes will be discussed in relation to the aforementioned research questions.

Experiences of Students with ASD in Mississippi Community College System

Retention can be considered in terms of how the student interacts with the educational institution. A campus environment that is welcoming can positively impact a student's effort to belong. Students who do not feel welcome are at a greater risk of attrition. Students with ASD, in addition to all SWDs, are influenced by the interplay between the self and the college environment, which, in turn, influences the "social and overall experience" for the students (Fleming et al., 2017, p. 216). For students with ASD who attend Mississippi community colleges, experiences appear to be positive. A collection of community college experiences as expressed by the three of the study's participants is shared in Table 5.

Table 5

Community College Experiences

Participant	Overall Community College Experience
Ben	I'd say, college has been better. There's the memories of high school, don't get me wrong, it was not [an] awful, terrible time, but there were moments you were unsure about things, things that are unknown to you. But, college has been, I don't know what the word is, more mature.
Joseph	I like it. I wasn't too keen on the idea of going to community college, I mean it was my decision of course…Once I got here, it's actually really nice and I'm getting the same feel and, give or take once again, but the same sort of experience [as a at four-year institution] and I'm getting the basics out of the way a lot cheaper. It especially helps since I didn't really know what to do or what I was doing.
MaryBeth	I kind of like it. At first I wasn't keen at going to a community college, but now I kind of…classes are a bit smaller, and the teachers, you can get more personal with them.

The research findings suggest that students with ASD are generally pleased with their community college experiences in Mississippi. Feeling like part of the community (sense of belonging), belonging to peer or social groups (social integration), and positive interactions with faculty and DSS made the research participants feel positive about their experiences. As discussed in Chapter IV, belonging to a theater group, athletic group, and interaction with peers before classes and at social gatherings gave the student participants a sense a belonging on campus. Some of the challenges that confronted the participants were related to anxiety and stress, which were brought on by interactions with social or environmental factors such as, transitioning to college and navigating a new environment that involved making new friends and learning to live with a roommate. The increased responsibility to self-advocate also proved stressful for the study participants. Participants did not indicate perceived attitudinal barriers related to peers, faculty, or other college personnel, rather, the attitudinal barriers grew from their

own anxieties surrounding their classroom performance. In the sub-sections that follow, the two primary themes identified in Chapter IV have been explored in terms of the literature.

Peers make a difference.

Findings from this study pointed to the influential role peer interactions play in the community college experiences of the study's participants. Ben emphasized how integral making friends can be, especially during freshman year when the new environment was overwhelming. Joseph chose the school he attended in part because of some of his high school friends were planning to attend the same community college, thus a known social network was already in place. Simon was really happy with this community college experiences in large part because his peers make him feel like he is part of the community. During a time of immense stress over a course, Nicholas received support and guidance from a fellow classmate. Participating in school-related clubs, having roommates, communicating with classmates, and receiving support from fellow classmates were found to be other important components of campus socialization that the participants experienced.

The literature has stated that socialization may not have a direct impact on academic outcome, but "it can result in rejection and isolation outside of class" (Dillon, 2007, para 5), which can ultimately influence whether a student with ASD persists and completes their postsecondary education. As Ella shared in her interview, "…Make a friend, make friends with [students with ASD]. Because it's better to reach out to them than just to not to anything at all. 'Cause it will just make them feel like they are just no like everyone else, and just be isolated." Interactions with peers, faculty, and other college personnel can produce a sense of belonging and inclusiveness that can influence more positive college outcomes (Mamiseishvili & Koch, 2012). Peers, which are a tangible component of college environments, and supportive peer

networks can encourage the "normalization of disability" on college campuses. Friendships may develop through institutional policies that dictate how students are assigned to roommates in the dormitories.

Stronger social integration is a major need for students with ASD (White et al., 2016). A study by Elias and White (2017) suggested that students with ASD struggle with social tasks and independent daily living skills, particularly as those skills relate to transitions to the postsecondary environment. The same study highlighted strong parental concern for the social deficits of their children with ASD and the effects those deficits have on the social integration and "postsecondary success" (Elias & White, 2017, p. 8). Elias and White (2017) also found that that the chief parent-endorsed supports needed for individuals with ASD in postsecondary institutions were emotion regulation therapy, social interaction therapy, weekly therapy/counselling, and social interaction opportunities.

The process of creating new social support systems that involved making new friends and joining new peer social networks and identifying "leisure satisfaction", which can be challenging for an individual with narrowed interests, are core social integration challenges that confront students with ASD (Glennon, 2001, p. 187). These issues are "threats to feelings of belonging" (Fleming et al., 2017). Consequences of sense of belonging are far reaching and are critical for postsecondary success. According to Strayhorn (2012), sense of belonging is a basic human need that can drive emotional and psychological well-being. Additionally, it can positively affect "academic achievement, retention, and persistence" and influence social involvement, which can lead to the establishment of "meaningful relationships" (Strayhorn, 2012, p. 9). Student involvement in clubs and other organizations on campus foster a place of connection where friendships can be developed and nurtured (Strayhorn, 2012; Aquino, Alhaddab, & Kim, 2017).

Therefore, social integration is a core need for postsecondary student success and can be hindered by a student's difficulty with social interaction, interpersonal competence, and limited social supports (White et al., 2016, p. 10).

College is stressful and self-determination matters.

The participants in this study emphasized the role that stress and anxiety play in their day-to-day experiences in community college. Numerous stressors were identified by participants. They include: transitioning from secondary to a postsecondary environment and learning to self-advocate; learning to live without the direct parental decision-making and intervention; buying books and being responsible for a budget; sharing a dorm room with an unknown peer; feeling overwhelmed by noisiness and rowdiness of dorm life; receiving low grades on assignments; testing; displaying heightened empathy for others' problems; and, struggling to locate places on campus. Ben discussed the "mind-boggling" experience of transitioning to a new school environment. He struggled with immense test anxiety and it manifested in self-injurious behavior and self-criticism. Joseph and MaryBeth described having heightened levels of stress that were brought on by experiences with homework, tests, or classroom interactions. Like Ben, Nicholas had a stressful transition to college. He has also had stressful academic experiences, which have been partially remedied by the addition of new accommodations. For both Nicholas and Ella, uncertainties or low expectations for receiving accommodations meant they did not seek support for academic challenges. The unnecessary stress surrounding the academic needs was prolonged because they were unaware they could ask for supports and how to proceed with the requests. Ella, who had learned how to live with a roommate, was facing heightened levels of stress and anxiety because she was living with someone who was soon graduating and would soon need to adjust to living with someone new.

Seth was open about his struggles with stress and anxiety and described taking medication to control his worries and stress related to college life.

The literature has stated that individuals with ASD will often continue to struggle with challenges that negatively impact their postsecondary academic success (Barnhill, 2016). Difficulties related to "nonverbal communication and pragmatic language, social skills, repetitive behaviors, resistance to change, sensory challenges" and difficulties related to executive functioning and emotional intelligence can impede a student's adult life and academic performance, thus negatively impacting their ability to succeed at college (Barnhill, 2016; Dillon, 2007). Social skills challenges may further impede a student's ability to connect to others and may impact a student's classroom experience. Social isolation, immense dependence on parents, and extreme stress negatively impact a student's postsecondary completion (Cai & Richdale, 2015; White et al., 2016). Furthermore, "managing social, daily living, and social concerns, navigating inconsistencies and change in routine, and managing intense emotions" may manifest in challenges to students with ASD (White et al., 2017, p. 10).

The adjustment to living on campus and away from parents can be stressful. It is a time for students with ASD to develop independent living skills and to learn to self-advocate (Hadley, 2011; White et al., 2016). For students with ASD who have likely come from a home where one or more family members were acutely involved in assisting with the daily needs of the student and from a public secondary school setting where a mandated support team were supportive and readily available to the student's academic needs, entering a new environment without the day-to-day guidance and support of parents and support team is an overwhelmingly frightening experience (Glennon, 2001; Hendrickson, Woods-Groves, Rodgers, and Datchuk, 2017).

Each of the participants referred to their parents during the interviews. Ben was somewhat relieved to have independence for the first time, but still struggled with making his parents believe he could make it on his own. Although his transition was challenging, he wanted to prove to his parents that he could manage. Seth's parents are strongly involved with his college life and help with navigate his campus, secure accommodations, and return needed paperwork. He proposed that parents be allowed to have strong involvement in their child's college life because they are an integral support system.

The early stages of transitioning to the postsecondary environment are exceedingly stressful for students who are prone to stress and anxiety, such as students with ASD (Glennon, 2001). The study's participants identified the importance of receiving accommodations and support from their college's DSS. To mitigate the stress of transitioning to their respective postsecondary institutions, accommodations that counteracted stressful experiences related to test taking, assignment completion dates, taking notes in class, and general anxiety stemming from interactions in class were obtained. Additionally, DSS helped create a bridge to the faculty members. For MaryBeth, her DSS Director was able to intervene when a misunderstanding occurred between a faculty member and MaryBeth; the faculty member had a faulty perception of MaryBeth's classroom behavior. The DSS Director disclosed MaryBeth's ASD diagnosis with the faculty member and the issue was quickly and easily resolved. Once the stressful situation was mitigated, MaryBeth had no continued negative experiences. Ella even described her DSS director as a friend.

Student perceptions of successful degree completion.

Five of the seven participants plan to transfer to a four-year institution upon successful completion of their community college degree. The community college experience has helped

ease the transition to postsecondary education for the participants. Joseph feels that attending community college was an "easier leap" than going straight to a four-year institution. He feels that he is faring better than a friend who chose to go to a university. MaryBeth initially did not want to attend a community college. However, she is happy that her parents encouraged her to do so because she enjoys the smaller class sizes and the ability to be more personal with her faculty in comparison to what she may have gotten at a four-year institution. She was the only participant who was nearing graduation and had already been accepted to a four-year school. MaryBeth is acutely aware of her academic strengths and passions and feels she will be successful in her transfer to the four-year institution of her choice. For Nicholas, community college has been a great place to learn the basics and to develop independent living skills that will prepare him for transfer to an art institute that he has dreams of attending. Joseph, Nicholas, and Ella also felt it helped that some of their high school friends attended the same community college because it meant they already knew some others on campus.

The ease of receiving accommodations and the understanding faculty have can be seen as an influential factor in the students' perception of successful degree completion. Joseph likes the "individuality approach" and has benefited from the guidance of his advisors. He enjoys the informal classroom environments and the general ease at which he has received accommodations from his faculty. Ella enjoys her in-class experiences with peers and faculty. She does her best to focus on the semester at hand. According to Ella, "all you have to do is just focus on doing your work and prepare mentally and physically for what's coming up next" (i.e. graduation), and, "I believe [I'll] get there." She attributes her potential success to that of her DSS director, the writing center on campus, and her faculty who "are always helping" her. Seth also attributes his success throughout the community college system to understanding faculty.

In addition to the supportive environment offered through DSS, faculty, and other centers on campus, all seven participants received some type of support and guidance from their parents. For Seth in particular, his parents continued to participant his college life after his first year. Ben was conscientious about proving to his parents that he could live independently. Simon's parents encouraged and helped him prepare for mascot tryouts. Ella and MaryBeth go home on the weekends to unwind with their parents. This interplay among the participants' self-awareness, their faculty and DSS support, general college environment, and parental guidance, appear to be acutely influential in the expectations towards degree completion.

The literature has stated that students with ASD choose community colleges as their "primary gateway to postsecondary education" (Roux et al., 2015, p. 1). Previous studies have found that community college attendance by students with autism was over 81% (Highlen, 2016; Wei et al., 2014). Community colleges are open access and open admission institutions that cater to a diverse population of learners which may benefit from added academic supports (Roux et al., 2015). Existing literature elucidates the benefits for students with ASD when selecting between a 2- or 4-year institutions. Among community colleges, campus resources that provide benefit to students with ASD include: (1) disability support services that tailor a more individualized program for students, (2) faculty connections that include quality interactions (Cook, Rumrill, and Tankersley, 2009) and support; (3) high school peers that attend the same college and serve as familiar faces and help to ease the transition; and, (4) workload similar to that of high school that requires more weekly submissions thus keeping students from falling behind (Brown & Coomes, 2016; Zeedyk, Tipton, and Blacher, 2016).

Additionally, because there are 15 community colleges throughout the state of Mississippi, in comparison to eight public four-year institutions in the state, there is a greater

possibility that students can attend college and still stay close to home (Mississippi Community College Boards, 2018; Institutions for Higher Learning, 2018; Brown & Coomes, 20016; Zeedyk, Tipton, & Blancher, 2016). Such factors attribute to academic success for students with ASD and are reflected in the statements of this study's participants.

College supports that ensure successful educational endeavors.

Study participants shared their thoughts about what can help them and other students with ASD be successful in their academic pursuits. Each participant was given a variation of the prompt, *Please share your thoughts regarding what you perceive to be most important for helping you complete your degree program*. Table 6 is a collection of the suggestions offered.

Table 6

Suggestions for Successful Degree Completion

Participant	Thoughts Related to Factors for Successful Degree Completion
Ben	Honestly, don't put off stuff to the last minute…Don't be afraid to ask questions. Seek help when you feel like you're trapped, or are in a rut, or anything like that. Look for services like student development [centers] that will help you. Ask around…. Always be nice to people. Don't be afraid to make friends…they've helped a lot.
Joseph	I feel like scheduling is a big part of it because at the high school they had like two guidance counselors for four grades of one hundred people each and it was, [well], nobody really knew what they were doing they were just kind of like, "Oh, I think you'd do well in this class." It wasn't really based off of what you needed. Here [at community college] I feel like the scheduling is a good thing because they get you what you need and make sure you're able to graduate on time.
MaryBeth	Just mostly work hard, but still have fun so you won't feel like you're whole life is just academics and school. You've got to make sure to have fun whenever you can.
Nicholas	I would say the one thing to keep me successful is believing in myself, having the confidence of my friends and family and peers and just living the religion I believe in.
Ella	What I have now with [my DSS director] and the writing center and my faculty, they're all helping me. I mean, if I could trade if for something

Participant	Thoughts Related to Factors for Successful Degree Completion
	better, I wouldn't. Because, as far as I know, this will be probably the best year that I'm probably going to get.
Seth	My suggestion would be, like when it comes to accommodations, let people that they know do a lot of things for them. I know a lot of people [with ASD] don't like having to do personal things themselves, like go on their own to sign something. I've had my parents kind of be able to decide some things for me so I don't have to deal with it.

Table 6 illustrates several important considerations for success at community college. While varied, the participant responses offer a glimpse into critical needs areas for Mississippi community college students with ASD. The extracts shared in the table highlight what students with ASD in Mississippi community colleges perceive are critical factors that can lead to successful community college outcomes. Those critical factors include time management, scheduling, guidance and support, positive mindset, fun, belief in own abilities, faculty understanding and support, DSS guidance and intervention, and parental involvement. Transition plans from secondary to post-secondary education, transition plans from community college to four-year institutions, and intentional support groups were only vaguely discussed or mentioned by the participants.

The literature has stated that a sense of belonging, involvement, self-determination, which includes self-advocacy, and self-regulation are important contributors to success at the postsecondary level for students with ASD (Ankeny, & Lehmann, 2011; Fleming et al., 2017; Hoffman, Richmond, Morrow, Salomone, 2003; Vaccaro, Daly-Cano, & Newman, 2015; Wessel, Jones, Markle, Westfall, 2009; White et al., 2016). Students must first acquire the skillset that are linked to self-determination, "specifically to self-advocacy and self-awareness" (Garrison-Wade & Lehmann, 2009, p. 429). White et al. (2016) studied the needs of college students with

ASD. Through their exploration of three individual stakeholder groups, which included secondary and postsecondary school professionals, parents of students with ASD, and youth with ASD, the researchers identified three overarching constructs that play an influential role in the lives, and ultimately, the postsecondary completion of students with ASD. The three constructs include "emotion regulation and stress management, socialization, transition to adulthood/independence, intimacy, and academic demands" (White et al., 2016, p. 9). Table 7 has been reprinted from White et al. (2016) to illustrate three central themes that have been identified as primary needs that affect successful educational outcomes for students with ASD.

Table 7

Primary Needs for Successful Educational Outcomes

Overarching Construct	**Specific Facets**
Social integration	Navigating social interactions Finding social support Handling conflict with others
Self-determination	Finding transition services Self-advocacy Time management Sustaining or developing social motivation Goal Attainment Self-awareness and knowledge Independent living skills
Self-regulation	Managing social, daily living, and social concerns Navigating inconsistencies and change in routine Management intense emotions Executive functioning (e.g. managing inattention) Coping with academic stress

Note: Reprinted with permission from Students with autism spectrum disorder in college: Results from a preliminary mixed methods needs analysis, by White et.al, 2016. *Research in Developmental Disabilities*, 56, 29-40. 10.1016/j.ridd.2016.05.010.

The themes that emerged from the current study on experiences of students with an autism spectrum disorder in Mississippi community colleges can be connected to White et al.'s

(2016) three overarching constructs that can affect successful college outcomes for students in Mississippi. This suggests that students with ASD in Mississippi community colleges will likely have better outcomes if they develop positive social interactions and relationships, receive guidance and support for time management and scheduling, develop self-advocacy skills that will allow them to more-or-less independently discuss their own needs with faculty and other offices on campus, become more self-aware and have faith in their own abilities, learn appropriate and positive ways to cope with academic stress and intense emotions, and seek accommodations that will support executive functioning challenges.

Implications for Practice

The purpose of this study was to gain a deeper understanding of how students with ASD experience the community college setting in Mississippi. It was designed to be exploratory in nature and was intended to provide practitioners a glimpse into the postsecondary experiences of students with ASD (Bell et al., 2017). Literature related to transitions and accommodations for students with ASD is readily available (Bell et al., 2017; Stansberry-Brusnahan, Ellison, & Hafner, 2017; White et al., 2017; Mitchell & Beresford, 2014; LoBiano & Kleinert, 2013; Kelley & Joseph, 2012; Korbel, Lucia, Wenzel, & Anderson, 2011; Garrison-Wade & Lehmann, 2009). Literature that explores the "specific challenges that require nuanced and sensitive responses" from practitioners is beginning to emerge as researchers, practitioners, and policy-makers realize the need to better support students with ASD in order to improve retention and completion rates (Bell et al., 2017, p. 66; Fleming et al., 2017; Getzel & Thoma, 2008). Institutions that aim to move beyond the legal scope of Section 504 whereby accommodations are the core focus of supporting SWDs, should look to introducing practices that support the whole student in areas of social integration, sense of belonging, and inclusion. This research contributes to the discussion

of practices that can impact retention and completion rates of students with ASD in Mississippi community colleges.

The study focused solely on students with ASD who were registered with their campus DSS. Because it was a qualitative study, it cannot be generalized across all students with ASD in community colleges in Mississippi and in other states. Nevertheless, the reader can gain a better understanding of the experiences of the study's participants, who are students with ASD in Mississippi community colleges. Recommendations and considerations that may impact successful retention and completion of students with ASD have been developed based on the experiences of the participants and the extant literature and are presented in this section.

The major themes in this study suggested that peers make a positive impact on the community college experience and stress can hinder outcomes. Additionally, positive interactions with faculty and DSS make the learning environment more conducive while parental involvement is often important for transitioning and receiving accommodations. The findings also revealed that students typically received the standard academic accommodations and were, at times, unaware of what was available to them. Not all of the study's participants received information about their college's DSS during school orientation and not all received transition support. Parents were vital to transitioning and remained a major source of support for the participants. Five of the seven participants lived on campus and had to learn independent living skills and social skills through trial and error with their peers.

A recent study by Brown and Coomes (2016) underscored the importance of promoting equity through "individual interactions" with students with ASD while simultaneously pushing for a college environment that embraces "diversity through universal design, community responsibility, and celebrations of success" (p. 472). A number of best practices and institutional

responses for supporting students with ASD at community colleges have been identified in the literature (Cox et al., 2017; Brown & Coomes, 2016). Practitioners should consider (1) introducing universal design principles; (2) customizing accommodations or services; (3) educating campus constituents; (4) facilitating transitions; (5) creating and enforcing policies; (6) building relationships; (7) using groups intentionally; (8) being proactive; and (9) addressing functional limitations (Brown & Coomes, 2017, pp. 472-475; Cox et al., 2017, pp. 83-84). Community colleges that aim to be proactive in their support of students with ASD should consider how to best apply the aforementioned considerations to create environments that impact student success (Cox et al., 2017). Taking into consideration the aforementioned suggestions and the findings from this study, it is recommended that practitioners support students with ASD in Mississippi community colleges by (1) offering customized services; (2) introducing peer mentors; (3) involving parents; (4) fostering a disability-friendly community college environment.

Customize services.

A majority of two-year institutions offer reasonable accommodations such as note takers, use of audio recorders, extended exam time, and alternate test locations (Barnhill, 2016; Brown & Coomes, 2016). Support services more commonly offered include general counseling and tutoring. This study's participants received most of the same accommodations and general supports mentioned. Less commonly offered accommodations for students with ASD at two-year institutions included priority registration, sensory accommodations, and single room dormitory assignments (Brown & Coomes, 2016). General support services rarely include transition programs, peer mentor programs, student organizations for students with disabilities, and career counselling (Brown & Coomes, 2016). Few institutions offer services that support the

social needs of students with ASD (Zeedyk, 2016; Cullen, 2009). Introducing additional services that can be customized to the needs of students with ASD could lead to greater student retention and the development of an institutional environment that appreciates and supports a diverse population of students. DSS practitioners should consider how to incorporate services such as transition services, peer mentor programs, and student groups.

Transitioning to the community college environment can be particularly challenging and stressful for students with ASD (Gobbo & Smulsky, 2012; Peters & Brooks, 2016), which was reflected by this study's participants. As discussed in the literature review, the transition from a structured high school special education programs where parental involvement is strong and where an individualized education plan is in place to ensure educational success to a less structured postsecondary environment where a student must self-advocate is highly stressful and may present significant barriers (Daly-Cano et al., 2015; Trojano, Liefeld, & Trachtenberg, 2010). Students with ASD are confronted with the need to self-advocate, to learn how to navigate a new campus, and to interact socially with peers and faculty. Only one-third of community college students with ASD self-disclosed their disability. Those students who chose not to self-disclose may struggle with self-awareness, self-advocacy skills, or self-determination skills, all of which affect the resources and supports afforded to them (Roux et al., 2015).

Interventions that support the transition period should be participant-driven to ensure student success (White et al., 2016). Transitions to postsecondary education institutions should include "active collaboration among DSS, students, and parents", "explicit sets of rules, scripts, and expectations for student(s) to follow," and should begin before the start of the student's first semester (Wolf et al., 2009, p. 33), optimally during new student orientation or organized summer transition programs akin to Upward Bound programs (Nevill & White, 2011). White et

al. (2017) suggested identifying transition goals for postsecondary attendance should take place while the student is still in high school. Different community colleges may choose to adopt a service delivery model for supporting students with ASD. The model will impact the approach and supports offered to students during transition to college and through the duration of their studies with the community college. Table 8 depicts the models of service delivery suggested by Wolf et. al. (2009). A needs assessment conducted with students with ASD and service providers can offer a better idea of the type of service delivery model that would be most suitable at a community college (Garrison-Wade and Lehmann, 2009)

Table 8

Models of Service Delivery

Models of Service Delivery	**Services Included**
Disability Services	Accommodations plus regular meetings with student; other assistance as needed (no fee); may include peer mentoring
Augmented Services	Regular group or individual meetings for social and academic skills are added to above (often for a fee)
Clinical Model	Counseling, coaching, or therapy are added to above for a fee; often run out of counseling center on campus
Therapeutic Model	Special housing and monitoring added to above often with medication monitoring; sometimes external to college campus, very costly.

Note: Reprinted with permission from *Students with Asperger Syndrome: A guide for College Personnel*, by Wolf et.al, 2009, Kansas: Autism Asperger Publishing Company.

Student groups might include students with similar interests, such as the theater club in which Ben and Joseph participate. Such types of groups should be used intentionally whereby a strengths-based approach is utilized (Brown & Coomes, 2016). During orientation activities, community college practitioners could encourage students with ASD to identify student groups of special interest (Cullen, 2009). Another form of student support could be delivered through cultural centers and student organization for students with disabilities whereby students can

make connections with other students with disabilities and "campus allies" (Hadley, 2011, p. 80). Such types of groups can help students with ASD develop a sense of identity and belonging and foster a more welcoming campus environment beyond the confines of a DSS office (Hadley, 2011; Cullen, 2009).

Peer mentoring plays a critical role in the postsecondary success of students with ASD (Barnhill, 2016). These students often display "social impairments and idiosyncratic behaviors that make acceptance by peers difficult" (Highlen, 2017, p. 451). Like their high school peers, students with ASD choose to attend postsecondary college, but they may arrive to their new school setting without a social network. The peers and social support network they may have previously relied upon will also likely seek postsecondary education, work experience, military enlistment, or other avenues in different locations. This alienation poses a challenge for students who are confronted by challenges with social communication (Highlen, 2017). Peer mentoring and planned peer supports are one remedy to offset the challenges of entering a new environment. Nevill and White (2011) suggested that "peer mentoring programs can be implemented to help students develop social, academic, and independent living skills" (p. 1626). Because of its immense importance for the retention and success of students with ASD, peer mentoring is discussed as a separate recommendation for practitioners.

Introduce peer mentors.

Universal design was discussed in the literature review as a feature that would promote democratic equality where a sense of belonging is promoted and where students feel that less barriers exist to their educational pursuits (Hadley, 2011). Students with invisible disabilities such as ASD would not need to self-disclose in order to receive classroom supports because the learning environment would already have "flexibility in use" and "equitable, simple, and

intuitive use" (Cox et al., 2016, p. 84; Brabazon, 2015). Similar to an example by Cox et al. (2016), the assignment of student peer mentors for all incoming freshmen would provide students with ASD the same support received by all incoming students.

Peer mentors should be trained to support student transition into the community college system and to support the social skills development needs of students. Students with ASD struggle primarily with social interactions, making and maintaining friendships, and independent living skills (Elias & White, 2017; Zeedyk et al., 2016). Executive function competencies, such as the organization of one's academic life, time management, and navigating the new academic environment are additional areas that require support (Weis & Rohland, 2015). Peer mentors could ameliorate some of the social and executive functioning challenges by guiding the students through unfamiliar circumstances or situations that may be new to students entering postsecondary education. Cullen (2009) posited that a peer mentoring program could "not only provide opportunities for [students with ASD] to practice social skills in a variety of college settings (dorm living, cafeterias, study groups) but such opportunities could also benefit neurotypical students by enhancing their sense of belonging and connection to the university or college" (p. 98). Peer mentors could provide support through a variety of roles such as academic coaches, social coaches, and mentors in dormitories (Barnhill, 2016). Peer mentors should receive additional training that would allow them to better understand the needs of students with ASD and those students from other diverse populations (Barnhill, 2016; Cox et al., 2016).

Involve parents.

Attending postsecondary education is typically a time of independence, which means less parental involvement. However, for participants of this study, parental involvement played an important role in the successful transition to community college, acquisition of accommodations

and services, campus involvement, and social support. Wolf et al. (2009) recommended that DSS officers and other support staff stay in touch with parents and encourage stronger parental involvement, at least in the early stages of transitioning to college. Parents have been involved with their child's development and educational planning since their child began their secondary education career. They have played the role of "caregiver, advocate, [and] career counselor (Hendrickson et al., 2017). Parents are acutely aware of the needs of their child with ASD, and they "are able to offer a holistic perspective about the types of supports (e.g. social, academic, home, health)" the student needs to be successful in his or her educational endeavors (Dymond, Meadan, Pickens, 2017, p.p. 810-811; Hendrickson et al., 2017). Parents can positively influence the educational outcome and can influence or alter the types of services provided to their child (Hendrickson et al., 2017).

Brown and Coomes (2016) determined that transitions are ideally balanced by family support while simultaneously empowering the student. A study by Barnhill (2016) found that parents are the greatest resource for postsecondary institutions and, because of their valuable insight, could be included in the intake interviews for ASD support programs. It was also recognized that transitioning to postsecondary education is a time of learning for parents (Brown & Coomes, 2016). Parents of children with ASD have likely become accustomed to playing a key role in their child's educational planning and may expect an open line of communication with their child's community college DSS (Wolf et al., 2009). However, the Federal Education Right to Privacy Act (FERPA) may limit the amount of communication that is allowed between the DSS and the parent. Whereas the limits of confidentiality are often discussed with parents of children with disabilities, Wolf et al. (2009) advocated that DSS practitioners take a more collaborative approach with parents of children with ASD. They suggest ascertaining from

parents about their child's "routines and interests, likes and dislikes, previous school experiences, relationships with peers, relationships with teachers, types of support received in the past, and challenges and/or problems (especially psychiatric)" (Wolf et al., 2009, p. 61). Once a respectful partnership with the parent has been established, the DSS can have more forthright conversations with parents about limiting their interactions with their child's college life (Wolf et al., 2009). A study by Barnhill (2016) found that some postsecondary institutions set specific communication guidelines with parents. For example, the DSS may email parents weekly during the first semester of the freshman year followed by bi-monthly email and later once monthly email as the student progressed through the academic program. Other examples of parental involvement included parent information sessions during the summer when the student is preparing for their transition to the community college. Parent sessions could be offered throughout the semester or during the first year. One institution hosted an end-of-semester celebration for students with ASD and their families (Barnhill, 2016). There is no magic formula to apply to the amount of parental involvement. Rather, practitioners should determine what is feasible within their institutional model and put specific guidelines into place.

Foster disability-friendly community college environment.

The participants in this study held positive perceptions of their community college environment. They discussed strong faculty support, active and available DSS personnel on their respective campuses, and accepting peers. To encourage a welcoming campus environment that supports positive academic outcomes for students with ASD, the role of DSS needs to be reimagined (Huger, 2011). DSS offices should reorient towards a social model in which disabilities are viewed as social constructs (Leake & Stodden, 2014). No longer should supports be offered solely based on equal access measures per ADA requirements. Rather, DSS offices

should also address social challenges and unwelcoming environments that can discourage students with ASD and other disabilities (Cox et al., 2017; Leake & Stodden, 2014). "A campus wide commitment to increased accessibility and usability requires rethinking the mission of offices of disability services and building new partnerships with campus constituencies" (Huger, 2011, p. 3). By changing the environment to a proactive rather than reactive environment, community colleges can become more inclusive (Leake & Stodden, 2014; Huger 2011).

To foster this type of environment, the DSS and other campus departments should enhance collaboration (Leake & Stodden, 2014; Huger 2011). To affect positive change, DSS practitioners, faculty, community college administrators, student services personnel, and student leaders must commit to efforts that lead to greater integration of students with ASD in the college community (Brown & Coomes, 2016; Leake & Stodden, 2014; Huger 2011). Suggestions for fostering a more inclusive and welcoming environment include having DSS personnel: (1) serve as liaisons with other campus departments to highlight aspects of inclusion in ways that enhance awareness, knowledge, and the use of appropriate terminology (Huger, 2011); (2) conduct workshops on ASD-related topics for the various student services offices (Leake & Stodden, 2014); (3) create partnerships with faculty, which will affect the classroom climate by fostering academic integration (Huger, 2011); (4) work with other campus administrators to spur awareness and recognition of the ways students with ASD will interact with their office, such as physical space and access to resources (Huger, 2011); and (5) encourage student leaders to encourage students with ASD and other disabilities to participate in clubs and activities, promote dialogue, and promote disability awareness on campus (Huger, 2011).

Implications for Research

The involvement or influence of parents was mentioned by each of the participants of the study. It became clear through the study's findings and through the exploration of extant literature that this was an area that needs further research. One of the participants in the study recommended that parents be allowed to be involved with all of the decision making and surrounding accommodation and support acquisition, whereas another participant reveled in the independence he gained by moving to college. A dearth of research that expands on experiences parents have had as their children with ASD transition to community colleges currently exists. The recommendation was made to involve parents in the early stages of their child's community college experience. It would be beneficial to explore the parent's role in the transition process and their expectations for their child with ASD. It would be interesting to compare the experiences of parents whose children were interviewed for this study in order to compare perceptions.

The study found that community college is stressful, especially the transition to the new college environment. To gain a better understanding of how transitions are supported by the community colleges, it would be useful to carry out a study with DSS personnel and other administrators. Doing so would also contribute to literature that supports efforts to create inclusive community college environments where supports for students with ASD are no longer solely the responsibility of DSS offices. This study found that interactions with faculty and DSS play a positive role in the experiences of the participants. Studying interactions between faculty and students and between DSS and students could influence best practices that encourage positive classroom and campus involvement among students with ASD.

Lastly, it would be useful to study the experiences of students with ASD at various stages of their postsecondary experience. Understanding how students experienced the transition to postsecondary education, their first semester, first year, and their exit from the community college system could lend a richer awareness of the types of supports that are needed for educational success throughout a student's postsecondary educational career. It could give a clearer idea of the timing of supports and interventions. It could also allow community college administrators and DSS practitioners to better plan for the various needs of their students by organizing appropriate training for their faculty, staff, and student leaders.

Conclusion

This study's findings add to the existing literature on experiences of students with ASD in the community college environment and to literature that pertains to educational experiences in the state of Mississippi. The seven student participants in this study provided their experiences with their community colleges institutional and structural environments, which was ascertained through interviews that used of Pascarella's general causal model as a foundation. Overall, students with ASD at Mississippi community colleges report positive experiences. Peers make a difference in their day-to-day lives. Although college life can be stressful, the participants reported supportive faculty, DSS personnel, and parents that encourage them to succeed.

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LIST OF APPENDICES

APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL

THE UNIVERSITY of MISSISSIPPI

2/17/2017

Ms. Berry
School of Education
University, MS 38677

Dr. Melear
School of Education
University, MS 38677

IRB Protocol #:	**17-052**
Title of Study:	**Experiences of Students with an Autism Spectrum Disorder in the Mississippi Community College System.**
Approval Date:	**02-17-2017**
Expiration Date:	**02-16-2018**

Dear Ms. Berry:

This is to inform you that your application to conduct research with human participants has been reviewed by the Institutional Review Board (IRB) at The University of Mississippi and approved **as Expedited under 45 CFR 46.110, Category 7.**

Research investigators must protect the rights and welfare of human research participants and comply with all applicable provisions of The University of Mississippi's Federalwide Assurance 00008602. Your obligations, by law and by University policy, include:

- Research must be conducted exactly as specified in the protocol that was approved by the IRB.
- Changes to the protocol or its related consent document must be approved by the IRB prior to implementation except where necessary to eliminate apparent immediate hazards to participants.
- **Only the approved, stamped consent form may be used throughout the duration of this research unless otherwise approved by the IRB, including the waiver of signed consent granted for the use of Skype interviews.**
- A copy of the IRB-approved informed consent document must be provided to each participant at the time of consent, unless the IRB has specifically waived this requirement.
- Adverse events and/or any other unanticipated problems involving risks to participants or others must be reported promptly to the IRB.
- Signed consent documents and other records related to the research must be retained in a secure location for at least three years after completion of the research.
- Submission and *approval* of the *Progress Report* must occur before continuing your study beyond the expiration date above.
- The IRB protocol number and the study title should be included in any electronic or written correspondence.

If you have any questions, please feel free to contact the IRB at (662) 915-7482 or irb@olemiss.edu.

Sincerely,

Ashley Crumby

Ashley S. Crumby, PharmD
IRB Member

APPENDIX B: MISSISSIPPI ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES (MACJC) COUNCIL ON INSTITUTIONAL RESEARCH AND EFFECTIVENESS (CIRE)

Mississippi Association of Community and Junior Colleges (MACJC) **Application to Conduct Research on MACJC Institutions**	LEAVE BLANK – FOR MACJC USE ONLY. PROJECT NUMBER: DATE RECEIVED: CIRE Recommendation (Check One): ☒ Approve ☐ Not Approve ☒ Approve with Stipulations ☐ Table for Further Review – Review Date: Comments: Stipulation: Please avoid using geographic locations of students or interviews. -DMC
DIRECTIONS: Individuals conducting research on Mississippi's community and junior colleges must complete this application. Individuals should also review the checklist following this application for more details. Submission of application does not equal approval. Research cannot begin before approval is granted. Applications are typically responded to within 30 days of receipt.	

Purpose - Individuals conducting research on Mississippi's community and junior colleges must complete this application and obtain approval from the CIRE Sub-committee on Outside Research prior to conducting any research. This Application serves the following purposes:

(1) requires the researcher to summarize the proposed research and provide supporting documentation ensuring that research is performed in compliance with all applicable laws, regulations, and institutional and federal policies regarding human subjects research,
(2) ensures the proposed research has institutional support through IRB approval and the endorsement of a qualified research advisor (i.e. faculty member) who assumes responsibility for the project,
(3) provides the applicant with appropriate documentation that the proposed study has been reviewed and approved.

Principal Investigator (PI) Contact Information – The PI for the purposes of this application is the individual who will personally conduct this research study. Under most circumstances, the PI will be the student researcher.

Name:	Krystal Berry	Phone:	
Email:	kmsirota@go.olemiss.edu	Fax:	n/a
Address:		City:	
		State:	MS
		Zip:	

Is the PI a current employee of one of the MCCB or one of the MACJC institutions?
☒ Yes, Institution Mississippi Community College Board ☐ No

Research Advisor (RA) Contact Information – The RA for the purposes of this application is the individual who will personally supervise and oversee this research study. Under most circumstances, the RA will be the faculty member working with the student researcher.

Name:	Dr. Kerry Brian Melear	Phone:	(662) 915-5016
Email:	kbm@olemiss.edu	Fax:	(662) 915-7249
Address:	107 Guyton Hall	City:	Oxford
		State:	Mississippi
		Zip:	38677

Sponsoring Institution or Agency: University of Mississippi			
Sponsoring Academic Division/Department: School of Education			
Source of funding for research: No funding provided			
Start Date of Research:	February 2017	End Date of Research:	July 01, 2017

Has the study obtained IRB approval from sponsoring institution?
☒ Yes, Approval Date 02.17.2017 If Yes, was Study ☐ Exempt or Expedited (deemed minimal risk to human subjects)
☐ No ☒ Full Board (deemed greater than minimal risk or work with

Signatures

Principal Investigator – I certify that the information in this application is complete and correct. As Principal Investigator, I have the ultimate responsibility for protecting the rights and welfare of human participants, secure conduct of the research, and the ethical performance of the project. I will comply with all applicable federal, state, and local laws regarding the protection of participants in human research.

Signature of Principal Investigator — Date: 02/23/2017

If the proposed research is sponsored by an institutional of higher learning, has the proposed research been approved by the IRB of the sponsoring institution?

☒ Yes ☐ No

If "Yes", please obtain the Research Advisor and Department Chair (if applicable) signature below. If "No" the Research Advisor and Department Chair signatures may be left blank.

Research Advisor – I certify that the information in this application is complete and correct, and that this proposed research has been approved by the IRB of the sponsoring institution. As Research Advisor, I confirm that the student researcher under my guidance is knowledgeable about the regulations and policies governing research with human subjects, and has sufficient training and experience to conduct the research outlined in this application.

I further agree to regularly meet with the student researcher to monitor his or her progress; and if problems arise, I will become personally available to help the student researcher resolve those problems. As an advisor on this project, I will assure the protection of the rights and welfare of human participants, secure conduct of the research, and the ethical performance of the project. I will comply with all applicable federal, state, and local laws regarding the protection of participants in human research.

Signature of Research Advisor — Date: 7/25/17

Department Chair – I acknowledge that this research is in keeping with the standards set by our department and our institutional IRB or its equivalent. I also certify that the Principal Investigator has met all the departmental and institutional requirements for approval of this research.

Signature of Department Chair — Date: 2-23-17

CIRE subcommittee chair – I acknowledge on behalf of the Council on Institutional Research and Effectiveness (CIRE) that this research has been reviewed and has subsequently received the following recommendation by consensus of the membership:

☐ Approved ☐ Tabled for Further Review

APPENDIX C: SEMI-STRUCTURED INTERVIEW PROTOCOL

Semi-Structured Interview Script & Questions

Study Title: *Experiences of Students with an Autism Spectrum Disorder in the Mississippi Community College System*

Interviewer: *Krystal Berry*
Interviewee:
Interview Setting:
Affiliation with interviewee:
Time of Interview:
Date of Interview:

SEMI-STRUCTURED SCRIPT

Discuss Consent and reiterate the voluntary nature of the interview
Investigator will collect *Consent to Participate* forms.

Interviewer: Thank you for agreeing to speak with me today. The purpose of this interview is to understand the experiences you have had as a student with an autism spectrum disorder at your community college in Mississippi. This is an exploratory study and there are no right or wrong answers. A pseudonym will be used in place of your name and you will not be identified with your school. I would like to spend the next 30 to 45 minutes learning more about your experiences. If at any point you are uncomfortable or wish to end the interview, please know that you may do so. Do you have any questions before we begin?

Interview Protocol:

Pascarella's Five Major Sets of Variables Questions

1. **Student Background/Precollege Traits**
    a. Will you please tell me more about yourself?
    b. How did you enjoy your high school experience?
    c. Explain how you prepared to attend community college?
    d. How would you describe your personality?
2. **Structural Organizational/Characteristics of Institution**
    a. How would you describe your institution?
    b. What made you choose this institution?
3. **Institutional Environment**
    a. What is your major?
    b. Why did you choose that major?
    c. Please tell me about where you live while attending school.
    d. How would you describe your experience in your classroom?
4. **Interactions with Agents of Socialization**
    a. How would you describe your experience with the faculty you have had in your courses?
    b. How would you describe your experience with your peers?
    c. How frequently do you interact with your faculty and peers?
    d. Have any interactions at your college stood out in a positive or negative way?
5. **Quality of effort**

a. How would you describe the amount of effort you put into your courses?
b. How would you describe the amount of time and effort you put into socializing?

(Pascarella and Terenzini, 1991)

References:

Jacob, S. A., and Furgerson, S. P. (2012). Writing Interview Protocols and Conducting Interviews: Tips for Students New to the Field of Qualitative Research. *The Qualitative Report*, *17*(42), 1-10. Retrieved from http://nsuworks.nova.edu/tqr/vol17/iss42/3

Pascarella, E. T., and Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco, CA: Jossey-Bass.

APPENDIX D: Recruitment Letter for DSS Personnel

DISABILITY SERVICES OFFICER EMAIL

Good afternoon,

My name is Krystal Berry and I am a doctoral student in the School of Education at the University of Mississippi in Oxford, MS. I am conducting a study to highlight the experiences of students with an autism spectrum disorder (ASD) in the Mississippi community college system. The experiences will help identify student-related, structural and organizational, and environmental factors that affect student success in Mississippi. My research is part of a stream of research that focuses on sub-populations of marginalized students within the higher education system in Mississippi. My colleague, Ronda Bryan, will also be contacting each of you regarding her research related to deaf and hard of hearing students. This study has been approved through the University of Mississippi's Institutional Review Board and the MACJC Council on Institutional Research and Effectiveness (CIRE) subcommittee on External Research Approval.

Students with an autism diagnosis who are registered with their campus disability services office are sought for the study. Participation involves a face-to-face interview with me. Interviews are expected to last between 30 to 45 minutes. I will work to accommodate the schedule of the participants in a location on campus. Identifying information will be excluded and student responses will remain anonymous through the use of pseudonyms. Additionally, no local or regional identifiers will be used in an effort to maintain college anonymity.

I am seeking the support and assistance of all support services coordinators in my efforts to recruit students for the student. Will you please share the attached study recruitment letter with your students? Please inform the students to contact me directly at kmsirota@go.olemiss.edu or, if preferred, to inform you of their interest.

I look forward to speaking with students on your campus who may be interested in participating in this study. Please feel free to contact me with questions using the contact information provided below.

Thank you for your time and consideration.

Sincerely,
Krystal

Krystal Berry
Doctoral Student
University of Mississippi
kmsirota@go.olemiss.edu

APPENDIX E: RECRUITMENT LETTER FOR STUDENT PARTICIPANTS

STUDENT EMAIL – FOR USE OF DISABILITY SERVICES OFFICER

Dear Student,

My name is Krystal Berry and I am a doctoral student in the School of Education at the University of Mississippi in Oxford, MS. I am conducting a study to highlight the experiences of students with an autism spectrum disorder (ASD) in the Mississippi community college system. The experiences will help identify student-related, structural and organizational, and environmental factors that affect student success in Mississippi.

Students with an autism spectrum diagnosis who are registered with their campus disability service office are sought for the study. Participation involves one face-to-face interview with me. Interviews are expected to last between thirty to forty-five minutes. We can meet at your college campus or other mutually agreed upon location. All interviews will be audio-recorded and transcribed by a research team. The recordings will be destroyed at the conclusion of my study.

Your participation will remain anonymous. Your responses will be recorded for analysis and pseudonyms will be used in place of any personally identifying information. Other personally identifying information will be hidden. The name of your community college will not be identified in the results. Regional identifiers, such as northern, central, and southern, may be used in the results. The findings from this study may be used for publication or conference presentations.

Participation in this study is voluntary. You may choose not to answer specific questions. You may also choose to drop out of the study at any point. No incentives are offered for participation. There are no expected risks for participating in this study.

I would like to begin conducting interviews in late November 2016 and will continue to meet participants until late November 2017. I would love to have the opportunity to speak with you to learn about your experience at your community college.

Please email me at kmsirota@go.olemiss.edu to schedule an interview or to ask questions about the study. If you prefer, please ask your coordinator to contact me to set up the interview. I look forward to meeting you and I hope you will consider helping me develop recommendations for the improvement of our community college system in Mississippi.

Best Regards,
Krystal

Krystal Berry
Doctoral Student
University of Mississippi
kmsirota@go.olemiss.edu

APPENDIX F: CONSENT TO PARTICIPATE

The University of Mississippi
Institutional Review Board
Protocol # 17-052
Approval date 2-17-17
Expiration date 2-16-18
Signature Ashley Cawley

Consent to Participate in Research

Study Title: *Experiences of Students with an Autism Spectrum Disorder in the Mississippi Community College System*

Investigator
Krystal M. Berry, M.B.A.
School of Education
The University of Mississippi
228 Guyton Hall
University, MS 38677
(601) 572-0799
kmsirota@go.olemiss.edu

Faculty Sponsor
Kerry Brian Melear, Ph.D.
School of Education
The University of Mississippi
108 Guyton Hall
University, MS 38677
(662) 915-5016
kbm@olemiss.edu

☐ By checking this box I certify that I am 18 years of age or older.

The purpose of this study

The purpose of this study is to identify the experiences of students with an Autism Spectrum Disorder within the community college system in Mississippi, and to understand how those experiences affect the students' perceptions of a successful degree completion. I also want to identify what students with an ASD believe can be done within their college to support their educational endeavors.

What you will do for this study

You will receive an email and a phone call confirmation within one week from the scheduled interview. You will receive instructions where the meeting location will be held on your campus. Please dress in your casual, day-to-day attire as this is not a formal interview.

During the interview you will be asked several questions about your experiences as a student with Autism Spectrum Disorders at your community college. The interview will be audio recorded. No video recording will take place. Transcriptions of the interview will be carried out within two weeks of the interview; a copy of the transcription will be emailed to you for your review. You may make suggestions for revisions.

Your responses will remain anonymous. A pseudonym will be selected for each participant. You may offer suggestions for your pseudonym.

Time required for this study

The interview will take between thirty minutes to one hour max. You may spend another 30 minutes reviewing the transcriptions from the interview. Total expected time required for the study is one hour and thirty minutes.

Possible risks from your participation

You may feel stress related to sharing any positive and negative experiences you have faced at your community college in Mississippi.

Please see the Confidentiality section for information on how we minimize the risk of a breach of confidentiality, which is another risk anticipated with this study.

Benefits from your participation

You should not expect benefits from participating in this study. However, you might experience satisfaction from contributing to scientific knowledge. Additionally, your feedback will help with the development of suggested institutional improvements in the Mississippi community college system.

Confidentiality

Your responses will be attributed to a pseudonym in order to maintain your anonymity. Your email address will be maintained in order to send you the transcript of the interview for your review. Your participation will not be reported to your Disability Services Office or any other official on your campus.

The audio recordings of the interview are needed for exploration of responses and for identifying common themes among all interviews conducted across the state. Files will be recorded on the researcher's personal laptop and a USB stick. All recordings will be deleted by May 2018.

Confidentiality and Use of Video/Audio Tapes

The responses gathered from your interview will be used in a dissertation manuscript and may also be used in a publication. You will be asked to sign a standard release form authorizing the audio recordings to take place.

Right to Withdraw

You do not have to volunteer for this study, and there is no penalty if you refuse. If you start the interview and decide that you do not want to finish, just *tell the interviewer*. Whether or not you participate or withdraw will not affect your current or future relationship with your community college, and it will not cause you to lose any benefits to which you are entitled.

Protected Health Information

Protected health information is any personal health information which identifies you in some way. The data collected in this study includes: autism diagnosis and other comorbid diagnoses. A decision to participate in this research means that you agree to the use of your health information for the study described in this form. This information will not be released beyond the purposes of conducting this study. The information collected for this study will be kept until this project is complete in May 2018. The use of the medical diagnoses will only be used for the purpose of describing the participant composition.

APPENDIX G: COPYRIGHT PERMISSION

Copyright permission

Krystal Berry <kmsirota@go.olemiss.edu> Sun, Mar 25, 2018 at 5:40 PM
To: support@aapcpublishing.net

Hello,

I am a doctoral student at the University of Mississippi in Oxford, MS. For my dissertation, I have explored the experiences of students with ASD in Mississippi community colleges. As such, I would like to share content from:

Wolf, L.E., Thierfeld Brown, J. & Kukila Bork, R. (2009). *Students with Asperger's syndrome: A guide for college personnel*. Shawnee Mission, KS: Autism Asperger Publishing Company.

With permission, I would like to replicate the *Models of Service Delivery* from page 54 in my discussion of research findings. I intend to offer the models of service delivery as considerations for Mississippi community college practitioners. Proper reference to the model will be provided with the table and in the bibliography.

Please let me know if you need any additional information.

Kind Regards,
Krystal

--
Krystal Berry
Doctoral Student
University of Mississippi
School of Education
kmsirota@go.olemiss.edu

Abbey Mellies <support@aapcpublishing.net> Tue, Mar 27, 2018 at 2:02 PM
To: Krystal Berry <kmsirota@go.olemiss.edu>

You have permission to do so.
--
Abbey Mellies
support@aapcpublishing.net
[Quoted text hidden]
Powered by Teamwork Desk

Permission to Use Table 4, p. 36

Krystal Berry <kmsirota@go.olemiss.edu> Tue, Feb 6, 2018 at 12:49 PM
To: sww@vt.edu

Dear Dr. White,

I am a doctoral student at the University of Mississippi in Oxford, MS. For my dissertation I am exploring the experiences of students with ASD in Mississippi community colleges. As such, my findings have suggested challenges and needs that are consistent with findings in the following source:

White, S. W., Elias, R., Salinas, C. E., Capriola, N., Conner, C. M., Asselin, S. B., Miyazaki, Y., Mazefsky, C. A., Howlin, P., & Getzel, E. E. (2016). Students with autism spectrum disorder in college: Results from a preliminary mixed methods needs analysis. *Research in Developmental Disabilities*, 56, 29-40. 10.1016/j.ridd.2016.05.010

With your permission, I would like to replicate Table 4, *Primary needs identified by needs analysis across online surveys and focus groups*, in my discussion of findings. I intend to highlight your study's findings and connect the findings to those that emerged in my own study. Source information will be provided.

Please let me know if you need additional information.

Best Regards,
Krystal

--
Krystal Berry, Ed.S., MBA
Doctoral Student
University of Mississippi
School of Education
kmsirota@go.olemiss.edu

White, Susan <sww@vt.edu>

Tue, Feb 6, 2018 at 2:01 PM

To: Krystal Berry <kmsirota@go.olemiss.edu>

I am fine with you replicating the table in your dissertation.

-Susan

Susan W. White, Ph.D., ABPP

Board Certified in Clinical Child and Adolescent Psychology
Associate Professor, Department of Psychology [http://www.psyc.vt.edu/users/sww]
Fellow, Association for Behavioral and Cognitive Therapies [www.abct.org]
Director, Psychosocial Interventions Laboratory [http://www.psyc.vt.edu/labs/pi]
Director, VT Child Assessment Clinic [https://www.psyc.vt.edu/labs/csc/childassessmentclinic]
Assistant Director, Child Study Center [https://www.psyc.vt.edu/labs/csc]

Co-Director, Virginia Tech Autism Clinic [https://www.psyc.vt.edu/outreach/autism]

Office mailing address:
Child Study Center
460 Turner St, Suite 207
Blacksburg, VA 24061-0100
Tel. (540)231-8511
Fax (540)231-8193
sww@vt.edu

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August 21, 2017

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Licensed Content Title	How College Affects Students: Findings and Insights from Twenty Years of Research, Volume I
Licensed Content Author	Ernest T. Pascarella, Patrick T. Terenzini
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Licensed Content Pages	920
Type of use	Dissertation/Thesis
Requestor type	University/Academic
Format	Print and electronic
Portion	Figure/table
Number of figures/tables	1
Original Wiley figure/table number(s)	Figure 2.2 "A General Causal Model for Assessing the Effects of Differential College Environments on Student Learning and Cognitive Development" The figure is located on page 54.
Will you be translating?	No
Title of your thesis / dissertation	Experiences of Students with Autism Spectrum Disorder in Mississippi Community Colleges
Expected completion date	May 2018
Expected size (number of pages)	150
Requestor Location	Mrs. Krystal Berry MS 39110 United States Attn: Mrs. Krystal Berry

Publisher Tax ID	EU826007151
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Copyright Permission for Use in Doctoral Dissertation

Sanfilippo, Tony <sanfilippo.16@osu.edu> Wed, Apr 18, 2018 at 2:35 PM
To: Krystal Berry <kmsirota@go.olemiss.edu>

Hi Krystal,
Permission is granted, free of charge, for the use of the figure in your dissertation. However, if you ever develop your dissertation into a published book, you will need to seek permission for that use, at that time.

Thanks,
Tony Sanfilippo, Director
Ohio State University Press
180 Pressey Hall
1070 Carmack Road
Columbus, OH 43210-1002
ohiostatepress.org
(614) 292-7818

Krystal Berry kmsirota@go.olemiss.edu Mon, Apr 16, 2018 at 3:01 PM
To: permissions@osupress.org
Dear Permissions Manager at The Ohio State University Press,

I am a doctoral student at the University of Mississippi in Oxford, MS. For my dissertation, I explored the experiences of students with autism spectrum disorder in Mississippi community colleges. I am seeking permission to use figure 1 on page 268 in my doctoral dissertation from the following source:

Renn, K. A., & Arnold, K. D. (2003). Reconceptualizing research on college student peer culture. The Journal of Higher Education, 74(3), 261-291. doi:10.1353/jhe.2003.0025

From the forwarded email below, you will see that I have been in contact with Dr. Renn regarding this my use of the figure. Please let me know if you require additional information to grant this request.

Kind Regards,
Krystal

Krystal Berry
Doctoral Student
University of Mississippi
School of Education
kmsirota@go.olemiss.edu

VITA

Krystal Thurman Berry
Phone: 601-572-0799
krystalmberry@gmail.com

Education

2018-present	Ed.D. Candidate, Higher Education University of Mississippi, Oxford, MS Dissertation topic: "Experiences of Students with Autism Spectrum Disorder in Mississippi Community Colleges" Committee Chair Dr. Kerry Brian Melear
2015	S.C.C.T., Specialist in Community College Teaching and Administration Arkansas State University, Jonesboro, AR
2003	M.B.A., International Business Arkansas State University, Jonesboro, AR
2001	B.S., Marketing Arkansas State University, Jonesboro, AR Cum Laude

Additional Education and Training

2017	Mississippi Community College Leadership Academy Mississippi Community College Foundation, Jackson, MS
2010	Certificate in Vocational Teacher Education Haaga-Helia University of Applied Sciences, Helsinki, Finland
2003	Certificate in International Project Management Rovaniemi University of Applied Sciences, Rovaniemi, Finland Deggendorf University of Applied Sciences, Deggendorf, Germany

Administrative Experience

2018-present	Assistant Director for Training and Professional Development Mississippi Community College Board, Jackson, Mississippi
2016-2018	Training and Professional Development Specialist Mississippi Community College Board, Jackson, Mississippi
2015-2016	Curriculum Specialist Mississippi Community College Board, Jackson, Mississippi
2003-2010	International Exchange Coordinator Rovaniemi University of Applied Sciences, Rovaniemi, Finland

Faculty Experience

2013-2015	Instructor of Business Communication Arkansas State University, Jonesboro, AR Courses: Business Communication, First Year Experience, Leadership, Organizational Behavior, Principles of Management
2011-2013	Business Lecturer Metropolia University of Applied Sciences, Helsinki, Finland Courses: Branding, Orientation to Business Studies, Relationship Skills in Business, Culture & Management, Culture in Business, Research Methods
2003-2010	Business Lecturer Rovaniemi University of Applied Sciences, Rovaniemi, Finland Courses: Introduction to Marketing, Marketing Planning and Strategy, Introduction to Communication, Introduction to Business Planning, Entrepreneurship, International Sales Negotiations, Customer Relationship Management, Speaking in Public, Employment Issues
2007 & 2008	Visiting Lecturer Saxion University of Applied Sciences, Enschede & Deventer, Holland Course: Brand Management

Conference Presentations

2018	"Turbocharged Faculty Development," Innovations 2018 Conference (The League for Innovation in the Community College), National Harbor, MD
2018	"Students with Autism Spectrum Disorder & Disability Services," ADA/Support Services/Title IX/Work-Based Learning/Coordinators Conference, Jackson, MS

2015 "Common Reader, Common Project, Uncommon Results in Critical Thinking" with Philip Tew and Kerry Tew (Arkansas State University), 34th Annual Conference on the First Year Experience, Dallas, TX

2007 "Teaching Abroad," Arkansas State University Business Teachers Conference, Jonesboro, AR

Invited Lectures and Presentations

2018 "Life Parenting a Child with Autism Spectrum Disorder," Parents & Kids Magazine Symposium, Jackson, MS

2015 "Evaluation Matrices," Business Faculty Spring Training, Arkansas State University

2014 "Twitter in the Classroom," Business Faculty Fall Training, Arkansas State University

University Service

2014-2015 Chair, Department of Management, Marketing, and Logistics Program Promotion Committee

2014-2016 College of Business Associate Assessment Coordinator

2014-2015 Co-Advisor, Phi Beta Lambda student organization

2014-2015 Department of Management, Marketing, and Logistics Search Committee

2014-2015 Women's Business Leadership Conference Planning Committee

2013-2015 Department of Management, Marketing, and Logistics Undergraduate Curriculum Committee

2013-2015 Department of Management, Marketing, and Logistics Student Development Committee

Professional Affiliations and Service

2017-present Co-Chair, Mississippi Autism Advisory Council (MAAC)

2015-present Chair, Mississippi Special Educational Advisory Panel (SEAP) member

2017-present Behavior Analysis Association of Mississippi (BAAMS) member

2017-present Association on Higher Education and Disability (AHEAD) member

2017-present American Educational Research Association (AERA) member

2017-present	National Association of Student Personnel Administrators (NASPA) member
2015-present	American Association of Community Colleges (AACC) member
2015-2017	Association of Career and Technical Education (ACTE) member
2015-2018	Association for Supervision and Curriculum Development (ASCD) member
2015-2017	National Career Pathways Network (NCPN) member
2014-2015	Autism Association of Northeast Arkansas board member
2014-2015	Community Health & Education Foundation member
2006	McGraw Hill textbook reviewer

Awards

2015	First Year Experience Outstanding Faculty Award, Arkansas State University
2015	College of Business Faculty Award for Excellence in Citizenship, Arkansas State University
2014	Student Affairs Hero Award, Arkansas State University
2005	Teacher of the Year, Rovaniemi University of Applied Sciences